

**Architecting Purpose-Driven Improvisation towards Organizational  
Effectiveness in Extreme Environments: Case Narratives from Organizations  
during Typhoon Haiyan**

**Eula Bianca Joves Villar**

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## DOCTORAL THESIS

Title: Architecting Purpose-Driven Improvisation towards  
Organizational Effectiveness in Extreme  
Environments: Case Narratives from Organizations  
during Typhoon

Presented by Eula Bianca Villar

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# Architecting Purpose-Driven Improvisation towards Organizational Effectiveness in Extreme Environments

Case Narratives from Organizations during Typhoon Haiyan

PhD Dissertation

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# ABSTRACT

This dissertation positions itself within the scholarly conversations on organizing processes in disaster environments. In particular, the main research inquiry is '*how does the interaction of individual and collective level attributes among improvised actions of the organizations explain how they can realize their goals, i.e. be effective, in extreme contexts?*'. Using a case strategy approach, it surfaces narratives of two profiles of organizations that were critical to the response and recovery phase of the 2013 Typhoon Haiyan. The main contribution of the work is two-fold:

First, it infers that improvisation, despite its emergent nature, is purpose-driven, as it allows organizations to consciously realize their pre-established goals. This occurs through two effects: (a) the buffering effect, and (b) the connection-seeking effect.

Second, it infers that purpose-driven improvisation is enabled by various narratives of interaction between the individual and collective level attributes. Three narratives are emergent: (a) a complementary interaction between the individual- and collective-level attributes, where both the individual and the organization play an equal role in enabling purpose-driven improvisation (b) an individually-maneuvered interaction, where the individual positionality is more pronounced in the enactment of purpose-driven improvisation, and (c) rule-abiding interaction, where the role of the organization precedes the individual positionality in the enactment of purpose-driven improvisation.

## PART I

*"So there was no equipment. The utility poles that fell are concrete 40-footer posts. A lot of people said that we cannot re-erect them without using a boom truck. Concrete. We did it."*

*"How?"*

*(Smiles) "Magic"*

- *Arcie, a field lineman from an electric company dealing with the aftermath of Typhoon Haiyan*

# 1. INTRODUCTION

## A. Background: The Super Typhoon they Named “Yolanda”

On the 10<sup>th</sup> of November 2013, the Philippines awakened to news of what is considered to be the strongest tropical cyclone in the country’s history. Headlines from national and international media reported the likes of *“Thousands Feared Dead in the Philippines”*<sup>1</sup>, *“Super Typhoon Haiyan: ‘It’s like a tsunami has hit’”*<sup>2</sup>, *“10,000 Feared Dead in Leyte – police”*<sup>3</sup>, and *“One of the Strongest Typhoons Lashes Philippines”*,<sup>4</sup> among others. In truth, the entire country had been anticipating the arrival of Typhoon Haiyan, or *Yolanda* as it is locally named, since the 4<sup>th</sup> of November. It was approaching from the East, and making its way towards the coastal provinces in the Visayan region of the Philippines.

On the day that the typhoon made landfall, on the 7<sup>th</sup> of November, contact could not be established with the provinces as to their state. The combined network capacity of the telecommunications industry went down in the provinces. The first responders from the Philippine military did not get to the site until a day or two later, and found that the airport runway was filled with debris, there was no electricity, there were *‘too many dead bodies’*, and *‘victims came in droves’*.

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<sup>1</sup> Culled from BBC News, reported on 10 November 2013, retrieved from <https://www.bbc.co.uk/news/world-asia-24887337>

<sup>2</sup> Culled from CNN News, reported on 11 November 2013, retrieved from <https://edition.cnn.com/2013/11/08/world/asia/typhoon-haiyan-hancocks/index.html>

<sup>3</sup> Culled from Rappler, reported on 10 November 2013, retrieved from <https://www.rappler.com/nation/43347-yolanda-death-toll-nov-10-am>

<sup>4</sup> Culled from Philippine Daily Inquirer, reported on 11 November 2013, retrieved from <https://newsinfo.inquirer.net/523635/yolanda-one-of-worlds-strongest-typhoons-blasts-philippines>



The magnitude of effect of Typhoon Haiyan came as a surprise to the Philippines, especially among the coastal provinces, which described themselves as being '*accustomed to typhoons*'. One of the local responders later recounted, "*we really prepared to the maximum. We prepared. But we were wiped out.*" Typhoon Haiyan turned out to be beyond what the responders imagined as something they could manage.

## **B. "We really prepared to the maximum... We were wiped out": Dissecting the Context**

In the literature on disaster response, studies confirm that despite the existence of emergency and action plans, responders often resort to acts of improvisation as a means of coping with unprecedented situations in certain catastrophes (Lundberg & Rankin, 2014; Wachtendorf, 2004; Webb & Chevreau, 2006; Weick, 1990, 1998).

Improvisation, which is defined as the simultaneous conception and execution of action (Moorman & Miner, 1998b) has been considered as a likely counter-strategy for the failure of pre-established strategies (Leybourne, Lynn, & Thanning Vendelø, 2014). Empirical studies demonstrate the successful undertaking of improvisation to cope with catastrophes, including the Mann Gulch Fire of 1949 (Weick, 1993), the 9/11 twin towers attack in 2001 (Wachtendorf, 2004), and the Kenyan Crisis in 2007-2008 which saw the creation of the Ushahidi platform (Marsden, 2013), among others.

Despite the benefits that may be gained from undertaking improvisation, it is not without caveats. First, improvisation can entail deviation from existing organizational templates for action, and as a result, can raise some issues of legitimacy in relation to who

authors the action (Leybourne, 2007). Second, the transferability of improvisation in one context is not automatic for another context (Weick, 1998), and as a result, the favorability of the outcomes for organizations tend to be interpreted as incidental. These caveats have therefore made it challenging to concretely articulate acts of improvisation as a legitimate part of organizing processes in both theoretical frameworks and praxis.

The motivation for this dissertation stems from these mentioned caveats. In this dissertation, it is argued that the caveats are deeply rooted in our limited understanding of how improvisation is consciously related to concrete organizational outcomes. The implications for this argument is twofold. First, organizational outcomes are rooted on organizational goals. This means that organizations improvise in favor of outcomes that realize pre-established goals. Such ability of organizations to realize its goals is also conceptually referred to as *organizational effectiveness*. Hence, this signals the need to explore the process by which improvisation brings about the realization of organizational goals. Second, organizational improvisation can be enacted by individual organizational members, and therefore individual agency cannot be taken for granted. As a result, it is important to see how individual attributes interact with organizational level attributes in the enactment process of improvisation that is consciously directed towards organizational effectiveness.

On that note, the primary aim of this dissertation is to explore the extent to which improvisation can be linked with organizational goals, and consequently articulate how it may be incorporated in existing frameworks for organizational goals. Moreover, in understanding how improvisation and organizational goals are linked, this dissertation

also seeks to explore the process by which attributes found at the individual domain, i.e. knowledge, skill, and personal traits, interact with attributes found at the organizational domain, i.e. structure, process, and resource configuration, to achieve a particular organizational outcome.

This is a conversation worth considering because improvisation becomes an inevitable recourse among organizations during disasters. Indeed, most disasters are inevitably linked with emergent phenomena (Drabek & McEntire, 2003), which invite emergent solutions such as improvisation.

Ultimately, at the core of disaster management are the ‘twin foundations of preparedness and improvisation’ (Drabek & McEntire, 2003). This implies that organizations involved in response operations post-disaster have to internalize improvisation as an inevitable contingency. At the same time, however, organizations have to maintain their mandates and preserve their goals amidst potentially rule-bending improvisations.

In this regard, the main inquiry that guides this dissertation is: *‘how does the interaction of individual and collective level attributes among improvised actions of the organizations explain how they can realize their goals, i.e. be effective, in extreme contexts?’* Answering this question will help demonstrate how improvisation partakes in the overall organizational picture of those that are engaged in disaster environments. Moreover, it will help reinforce and further the inference that ‘improvisation is not just

something that individuals do, it is a learned capacity that organizations can manage' (M. P. Cunha, Neves, Clegg, & Rego, 2015).

Note that the nature of this inquiry is process-oriented, instead of variance-oriented (Langley, Smallman, Tsoukas, & Van de Ven, 2013; Van de Ven, 2007). The main reason for this is that organizations that are embedded in extreme environments work in a context that is in a state of impermanence and uncertainty (Brown & Eisenhardt, 1997; Eisenhardt & Tabrizi, 1995). As a result, organizations act and react organically based on how they make sense of the context they are navigating (Weick, Sutcliffe, & Obstfeld, 2005a). This is consistent with the emergent nature of organizing in disaster environments (Quarantelli & Dynes, 1977).

Case study approach is used to draw the experience of organizations that were critical to the response process in the aftermath of the 2013 Typhoon Haiyan. Two profiles of organizations are examined in particular: small, local organizations that were in the field prior to the entry of Typhoon Haiyan, and large, national organizations that entered the field after Typhoon Haiyan.

By surfacing the narratives on how each profile of organization employed improvisation to realize their organizational goals, this work contributes to the scholarly conversation regarding the use of improvisation as a purposeful mechanism to achieve organizationally-aligned goals, amid the emergent nature of the act itself. In particular, *buffering* and *connection-seeking effects* of improvisation are conceptualized to capture how it is used as a purposeful mechanism to achieve particular goals.

Moreover, narratives of interaction between the collective and individual level attributes are also explored and conceptualized in this dissertation. There are three particular narratives put forth: (a) complementary interaction between individual and collective level attributes, (b) individually maneuvering interaction, and (c) individually abiding interaction.

Together, the findings of this dissertation are analyzed to put forth a number of inferences that generate an exploratory framework on organizational improvisation.

### **C. Structure of the Dissertation**

This dissertation is divided into four parts:

Part I draws in on the literature review, theoretical grounding and the gap in the literature that this dissertation seeks to address (Chapter 2). It also provides details on the methodological underpinnings of this dissertation (Chapter 3).

Part II presents the case findings from two profiles of organizations. Chapter 4 dissects the narrative of Case 1, i.e. small, local organizations that were already on the field prior to the onset of Typhoon Haiyan. Meanwhile, Chapter 5 presents the narrative of Case 2, i.e. large, national organizations that only entered the field after Typhoon Haiyan.

Part III folds in the findings from Part II and provides an analysis of the findings to answer the inquiries in this dissertation. Chapter 6 addresses the first objective of linking improvisation with organizational goals, while Chapter 7 addresses the second objective of showing the process by which individual and collective level attributes interact with one

another in the enactment of improvisation to realize organizational goals. Both chapters also articulate the main theoretical contributions of the dissertation.

Finally, Part IV, which is a stand-alone chapter on Conclusion (Chapter 8) concludes with reflections on the implications of the findings for further theorizing organizing processes in disaster environments, and more importantly, for the practice of organizations that are engaged in disaster response. Limitations of the study and prospects for future research are also considered.

## 2. REVIEW OF RELATED LITERATURE

Disaster environments tend to introduce shocks that overwhelm and displace previous templates for action. This, in turn, inevitably sets a precedent for organizations to undertake improvisation as a means of coping with the novelty and irregularities in the environment. Early seminal works demonstrate how improvisation has become a common resort among organizations that operate in disaster environments (Weick, 1993, 1998), which then opened the door for a much richer scholarly conversation regarding the subtleties and nuances of the use of improvisation within contexts of organized responses to novelty and shock (Giustiniano, Cunha, & Clegg, 2016a; Lundberg & Rankin, 2014; Mendonca & Wallace, 2004; Mendonça, Cunha, Kaivo-oja, & Ruff, 2004; Roux-Dufort & Vidaillet, 2003; Wachtendorf, 2004; Webb, Beverly, Mcmichael, Noon, & Patterson, 1999).

As a field of study, improvisation is regarded as a relatively young but emerging field of study (Leybourne et al., 2014). Cunha et al. (1999) describe the literature as having evolved through three stages of theory development: the first stage focused on understanding improvisation by grounding it in the study of arts, specifically by using jazz and theater as a metaphor; the second stage focused on drawing empirical and anecdotal evidence to link improvisation with organizational settings; and the third stage saw the resurgence of the first-stage authors, with the aim of synthesizing the empirical and the conceptual leaps made so far in the field (M. P. Cunha, Cunha, & Kamoche, 1999).

Fifteen years after the publication of the comprehensive review of Cunha et al. (1999), Hadida et al (2015) followed up the work with the aim of surfacing a consolidating

framework that positions improvisation more concretely within the field of organization studies. They argue that while the time that had lapsed since the work of Cunha et al (1999) saw a surge of studies on improvisation, they remained fragmented, which in turn led to various conceptions (or misconceptions) about the implications of improvisation to the organization. They imply that as a field of study, situating improvisation within the discipline of organization studies has been challenging because the *organizational-ness*<sup>5</sup> of improvisation is not easily concretized. To address this, they proposed a consolidating framework that can help identify when improvisation is contained at the level of the organization or not (Hadida, Tarvainen, & Rose, 2015).

Arguably, the reviews presented by Cunha et al. (1999) and Hadida et al. (2015) represent crucial landmarks for mapping the evolution of improvisation within the field of organization studies. The time period between the two reviews shows an abundance of conceptual and empirical works, and has allowed for the consolidation of research streams that can be considered foundational blocks in studying improvisation as an organizational response to contexts characterized by shock and novelty, e.g. disaster environments.

The rest of this chapter is devoted to identifying and analyzing the research streams that are relevant to studying organizations that improvise in disaster environments. In the first section, *Improvisation – What is it?*, the core definition of organizational improvisation is considered. This is followed by the section, *Disaster*

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<sup>5</sup> In this dissertation, I refer to *organizational-ness* as a characteristic of an action that is recognized and legitimized by the organization.

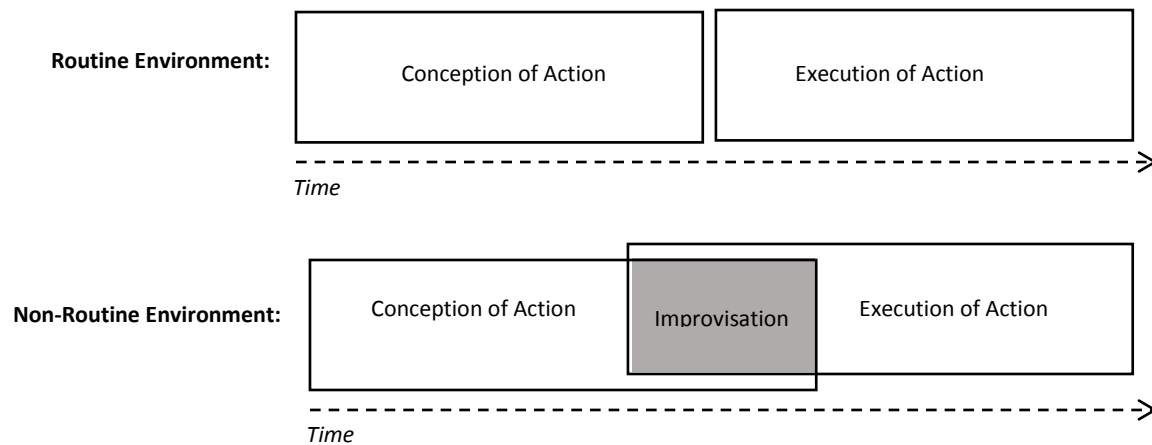


*Environments as Hotbed for Improvisation*, where the antecedents to improvisation are discussed. The third section, *Beware: The Dark Side of Improvisation*, takes into account the limitations of improvisation as well as possible disadvantages. The fourth section, *Architects of Improvisation*, brings to light the involvement of two agents that enact organizational improvisation: the organization that signs off the action, and the individual organizational member that enacts improvisation. Key arguments from each section are consolidated to present a critique to the existing state of the literature, *'The Questionable Intentionality of Improvisation in Realizing Organizational Goals'*. This is followed by the section, *The Missing Link between Improvisation and Organizational Effectiveness*, which brings together the chapter and articulates more specifically the perceived gaps in literature, and provides a statement of the guiding research questions of this dissertation, alongside research objectives.

#### **A. Improvisation – What is it?**

Improvisation is defined as the conception of action as it unfolds, drawing on material and immaterial resources including cognitive, affective, and social resources (M. P. Cunha et al., 1999; Moorman & Miner, 1998b; Weick, 1998). Figure 1 illustrates the definition of improvisation as the convergence of the conception and execution of action in a specific time. Based on the definition, two contexts are juxtaposed against one another: first is a routine environment, where there is a clear delineation as to the chronology of when an action is conceived or planned, and when the action is implemented. This kind of context affords organizations to undertake a careful planning process. Meanwhile, a contrasting context is that of a non-routine environment. These

contexts introduce a shock or a novelty, which can drive organizations to undertake actions with a sense of urgency. Cases of improvisation are mostly abundant in non-routine contexts (Eisenhardt & Martin, 2000; Pavlou & El Sawy, 2010; Weick, 1998).



**Figure 1:** Definition of Improvisation based on Moorman and Miner (1999) and Cunha et al. (1999)

As an action, improvisation occurs mostly in contexts that are characterized by some degree of extremeness. This can be likened to contexts described by Weick (1993) as *cosmology episodes*, where the organization's sense of what is rational and orderly is lost (Weick, 1993), yet there is a sense of urgency needed to respond to the situation. This 'need' for response is what directs organizations to act, and such actions can either be based on a template known to them (i.e. as in the case of disaster response, a template could be an emergency plan), or if such templates no longer render themselves applicable, then the action can be improvisational. Some of the antecedents to improvisation therefore include stress, shock, novelty, and unanticipated changes in the respective environments of organizations (Eisenhardt & Martin, 2000; Moorman & Miner, 1998b;

Weick, 1998), while at the same time bearing some urgency and demand for speed and action (M. P. Cunha et al., 1999).

## **B. Disaster Environments as a Hotbed for Improvisation among Organizations**

Disasters are conceptually defined as phenomena that disrupt and threaten the life-sustaining functions of a social system (Rodriquez, Quarantelli, & Dynes, 2007). Often, they occur out of a jolt in the system brought about by natural or man-made agents, e.g. typhoons, earthquakes, volcanic eruptions, chemical plant explosions, or related technological failures (Buchanan & Denyer, 2013; Dayton et al., 2004; Rodriquez et al., 2007). They often introduce elements of shock and novelty which in turn cause social systems to adopt unplanned courses of action as a means of adjusting to the disruption (Rodriquez et al., 2007). As a result, disaster environments can be considered as a hotbed for studying improvisation.

Certain studies lend examples of real accounts of improvisation in disaster environments. For example, following the 9/11 disaster, improvisation manifested itself in various forms, including the role taken by a tour boat to transform itself into an evacuation boat for the victims, as well as the credentialing process that was put in place after the disaster to ensure security of the sites in the midst of the collapse of inter- and intra-organizational structure (Kendra & Wachtendorf, 2016; Wachtendorf, 2004). During the Apollo 13, the accident and unanticipated failure of the shuttle's system prompted NASA to alter its initial goal (i.e., to land on the moon) and improvise a process that will support the attainment of a new goal (i.e., to safely get the shuttle to land back to the earth despite it previously not being rehearsed) (Rerup, 2001). Another account is that of

the Swedish Response Team's (STR) where specific departure from their role and mandate occurred during their deployment to provide relief and assistance to Swede nationals in two various missions: one being in Thailand during the Asian Tsunami in 2004, and two being in Lebanon during the unrest and eventual armed conflict in the Middle East in 2006 (Rankin, Dahlbäck, & Lundberg, 2013).

These studies converge in their finding that organized groups employ improvisation as a means of coping with the disruption. The take-up of studying improvisation within organized contexts is thus not far-fetched. For example, disruptions can cause a mismatch in resource configurations (Villar & Miralles, 2016). In the field of organization studies, improvisation has been framed as a means of exploring '*new ways of achieving objectives*' (Leybourne, 2007). It arguably has its roots in the study of Weick (1993) about the collapse of sense-making during the Mann-Gulch fire disaster in 1949. In the study, organizational vulnerability was exposed due to panic, loss of role structure, and general loss of sense-making (which Weick termed as '*cosmology episode*', where actors deeply feel that the universe ceases to be a rational, orderly system). Weick (1993) then identified four potential sources of organizational resilience in the face of cosmology episodes: improvisation and bricolage, virtual role systems (i.e. the ability to extend one's roles despite the loss of structure), wisdom, and respectful interaction. Specifically, improvisation was exercised in the creation of an escape fire by one of the firefighters – an action that, while not anticipated, saved the life of the firefighter. Weick (1993) also introduced the role of improvisation in sense-making and structure. Specifically, where meaning is lost (as the firefighters in the Mann Gulch fire, due to the magnitude of the

fire, were unable to grasp the situation), actors rely on structure, and structure can be built from existing script such as organizational order. Hence, where organizational order collapses, traditional order may be replaced swiftly with improvised manifestation of order to regain structure (Weick, 1993).

In a later and more detailed study, Weick (1998) explored improvisation as an organizational mindset and put it forth as a research agenda. He argues a '*newfound urgency*' in the field of organizational studies to '*understand improvisation as a means to cope with multiple commitments, interruptions, and transient purposes that dissolve without warning*' (Weick, 1998). In this context, the use of improvisation as a strategy to address new and extreme situations is hinted.

A number of organizational and management scholars followed this lead and started to explore the concept of 'organizational improvisation' (OI). A number of studies can be found at the intersection of disaster research and organization studies. For example, studies explored the design of a decision-support tool to support managers that are likely to undertake improvisation in emergency settings (Mendonca, Beroggi, & Wallace, 2001; Mendonca & Wallace, 2004). Studies have also been conducted to analyze how improvisation as a coping mechanism manifested themselves in specific emergencies or disasters, e.g. in the Tenerife Air Disaster (Weick, 1990), Mann-Gulch Fire (Weick, 1993), 9/11 Attacks (Kendra & Wachtendorf, 2002, 2003), and the Costa Concordia disaster (Giustiniano et al., 2016a), among others.

The concept of OI has also been explored in related organizational contexts such as strategy in new product development (Eisenhardt & Tabrizi, 1995), innovation (Larsen &

Bogers, 2014; Vera & Crossan, 2005), learning (Chelariu, Johnston, & Young, 2002; Miner, Basso, & Moorman, 2001; Vendelø, 2009), entrepreneurship (Baker, Miner, & Eesley, 2003), and management practices in fast-paced environments (Batista, Clegg, Cunha, Giustiniano, & Rego, 2016), among others. At its core, all these contexts manifest the common elements of novelty and shock, and some level of extremity that can be similar to disaster events.

Note that while improvisation as a concept is regarded as a common recourse in disaster sciences, the very concept of ‘improvisation’ as an action employed by agents in coping with extreme environments has been unpacked much more in organization studies than it has been in the field of disaster sciences. In disaster sciences, the pioneering works of Wachtendorf and Kendra from the *Disaster Research Center* are those which deeply dissected the concept within the said field (Kendra & Wachtendorf, 2002, 2016; Wachtendorf, 2004). Meanwhile, the study of improvisation using emergency and disaster contexts have mostly been conceptually situated within the field of organization sciences (Giustiniano et al., 2016a; Giustiniano, Cunha, & Clegg, 2016b; Lundberg & Rankin, 2014; Rankin et al., 2013; Weick, 1998).

Conceptually embedding improvisation within the ambit of organization sciences is expected because improvisation, ultimately, is an emergent process of organizing (Dynes & Aguirre, 1979; Quarantelli & Dynes, 1977). It is in this respect that in conceptualizing ‘improvisation’, this dissertation largely refers to its theoretical evolution in organizational sciences, while being informed by how the concept also evolved and was applied in the field of disaster sciences.

### **C. Beware: The ‘Dark Side of Improvisation’<sup>6</sup>**

The literature on OI commonly acknowledges that improvisation can bring with it certain advantages when undertaken in appropriate contexts. The case has been made as to the benefits that organizations when facing non-routine environments (Leybourne, 2007; Vera & Crossan, 2004; Weick, 1998). However, scholars also caution as to not overemphasize the benefits from improvisation.

Weick (1998) cautions scholars regarding the perceived limitations of improvisation: first, that improvisation among tightly coupled units may negatively affect the overall organizational outcome, given that improvisation in one unit of an organization may not be conducive to another; second, improvisations do not guarantee positive organizational outcomes, as the action is occurring untested in real time; and third, there are specific conditions wherein improvisation may be a liability, e.g. in highly scientific processes.

A related study on organizations in non-extreme settings highlights the uses and abuses of organizational improvisation (Flach, 2014). Flach (2014) particularly argued that while organizationally-situated improvisations have several uses, e.g. to cope with punctuated changes, specific phenomena and necessary adaptations, as well as in learning, training, and development, OI can also introduce some risks for the organization, e.g. overemphasis on the spontaneous facet of improvisation, chaotic performance, and ultimately non-existence of rules and failure of learning.

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<sup>6</sup> Adapted from the article *‘The Dark Side of Organizational Improvisation: Lessons from the Sinking of Costa Concordia’* (Giustiniano et al., 2016a)

Another point of critique is that improvisation tends to create a tension on the notion of an *organization* as having routines, order, and logical processes to achieve particular outcomes (Leybourne, 2007). It has thus been challenging to reconcile abrupt and accidental actions more formally into routine organizational practices. At best, it is considered as a contingency, or a '*counter-strategy to the failure of strategy*' (Leybourne et al., 2014). Even then, it does not erase the risk of potential shortcomings in case improvisation does not work. Given that it is an action that is not previously tested, improvisation is often considered an *irregularity*. Moreover, it is an irregularity whose enactment rests on two levels: the individual who enacts the action on the one hand, and the organization that officially authors it on the other hand. Ideally, one would expect a congruence between the two – which is common in routine situations where the individual acts on behalf of the organization. However, with improvisation, employees have to take responsibility for their actions, without necessarily having previously validated or agreed plan to support their decisions (Leybourne et al., 2014). As a result, it exposes both the employee and the organization that it represents to scrutiny in the event that the improvised actions are not successful (Leybourne et al., 2014).

Giustiniano et al (2016) confirm this the '*dark side*' of OI during the capsizing and sinking of the Costa Concordia ship in 2012. They demonstrate that in an organization that is characterized by high reliability, high levels of formalization of standards and practices, specific human decisions that led the organizational members to improvise around the standards run the risk of a disaster. Ultimately, they demonstrated the vulnerability of



improvising organizations as a combination of human shortcomings and structural failures.

The paradoxical nature of OI is indeed apparent, in that it can both be ideal but also risky for the organization. Based on the literature, this paradox seems to be rooted on the very fact that the legitimacy of improvisation as part of an organizational practice rests at the intersection of two levels: the individual that carries out the action, and the organization that officially authors the action as its own response to the environmental jolt. Thus, when an organization finds itself in a position that warrants improvisation, it has to account for the attributes occurring at two levels: the individual as a micro-unit, and itself as a macro-unit (Hadida et al., 2015). This can help delineate the *organizational-ness* of improvisation, i.e. if the individual who enacts improvisation does it to favor the outcomes of the organization, or as a flight or survival response from the individuals undertaking it.

#### **D. Architects of Improvisation and the Degrees They Enact It**

Considering the various levels at which improvisation can be enacted, there was a conceptual necessity to delineate individual from organizational improvisation. Moorman and Miner (1998b) took one of the first steps in this direction by distinguishing individual improvisation from collective improvisation. It is important to note, however, that this paper came about in a joint effort to more concretely situate improvisation within the scholarly conversations in organization studies. They argue that improvisation was largely seen as an individual endeavor, and it was important to clarify the connection between improvisation and the organization. On that note, they made a distinction between

individual improvisation that results from the actions of a single person, and collective improvisation that results from the pooled efforts of individuals, groups, or organizations (M. P. Cunha et al., 1999; Moorman & Miner, 1998a).

Beyond composition and size, a more succinct distinction between collective and individual improvisation relates to the purpose by which the architect of improvisation directs its actions on, i.e. for whose purpose is the action undertaken? Moorman and Miner (1998b) argue that improvisations undertaken by individuals can also be considered collective or organizational improvisation provided that the action is enacted on behalf of the organization. In a recent review on improvisation, Hadida et al. (2015) breaks down the organization according to cumulative representations and present the levels at which improvisation is occurring, i.e. individual, interpersonal, and ultimately, organizational. Individual improvisation occurs when employees of an organization adjust actions and routines to account for and bring new solutions to particular organizational problems, while inter-personal improvisation is the result of a collective action resulting from interactive sense-making across members of small teams to bring about solutions to organizational problems. Finally, organizational improvisation is considered an accumulation of individual and inter-personal improvisation that contributes to overall organizational outcomes.

In the same review, Hadida et al (2015) argue that each level can enact varying degrees of improvisation. The degrees are identified as minor, bounded, and structural improvisation (Hadida et al., 2015):

- a. 'Minor improvisation' is defined as reworking pre-composed material without necessarily deviating from it or completely transforming it (Hadida et al., 2015). This type of improvisation resembles 'interpretation' in Weickian perspective (Weick, 1998) and 'reproductive improvisation' in the findings of Wachtendorf (2004).
- b. 'Bounded improvisation' occurs when novel processes or products are pursued within existing structures. This type of improvisation arguably resides between 'embellishment' and 'variation' in Weick's (1998) terms, and also incorporates the 'process-or-product' classification of Miner et al. (2001). Moreover, there are also similarities with the characteristics of adaptive improvisation in the typology of Wachtendorf (2004).
- c. 'Structural improvisation' takes place when disparate areas of the organization become unexpectedly linked and at best instance leads to a redefinition or transformation of particular strategies, goals, or mission. This resembles the term 'improvisation'<sup>7</sup> in Weick's (1998) continuum, and is also reminiscent of the characteristics of creative improvisation in Wachtendorf's (2004) typology.

They further argue that the resulting outcome of improvisation will vary on both the level and the degree at which it is undertaken. The incorporation of the degrees vis-à-vis the levels of improvisation resulted in a matrix that allows a clearer grasp of the complexity of improvisation in organizations. A snapshot of the combinations in their framework and a more concentrated characterization of the OI are shown in Table 1:

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<sup>7</sup> In Weick's continuum of improvisation, he labels 'improvisation' as the 'transformation of [pre-composed material] into patterns that bear little or no resemblance to the original model'.

Combination	Concentrated Characterization of OI/Author Attribution
1. Minor-Individual	Spontaneous Practice (Weick, 1998) E.g. personnel improvisation within existing practices
2. Bounded-Individual	Expert Leadership (Barrett, 1998; Peplowski, 1998) E.g. 'wartime CEOs' and other organizational leaders taking autonomy to reach organizational objectives by all means necessary
3. Structural-Individual	Dropping Tools (Weick, 1998) E.g. Deliberate deviation from organizational structure such as surviving smokejumper in Mann-Gulch Fire
4. Minor-Interpersonal	Synchronization (Barrett, 1998) E.g. team members that are attuned and sensitive to one another's action and reactions, adjusting processes and solutions in new ways; Concrete examples include sports teams
5. Bounded-Interpersonal	'Yes and...' (Crossan, 1998) E.g. actors unconditionally accepting to a certain task ('yes') and building on ('and') actions of others; concrete examples include comedy, jazz, and improvisation dance
6. Structural-Interpersonal	Minimal Structuring (Plowman et al., 2007) E.g. managers and employees traverse around paradoxical combination of guidance and permission, or of rigidity and freedom; immutable rules are laid out to clarify what is non-negotiable, while allowing the employees flexibility to creatively solve problems; role of managers is emphasized as sense-makers; concrete example includes organizational practices to allow experimentation among employees in product development while not deviating from a certain set of goals and responsibilities; non-negotiable 'ends', free 'means'
7. Minor-Organizational	Space for Experimenting (Kao, 1997) E.g. organizations that are more loosely structured, encouraging novel ways of performing routine tasks, and creating space for experimenting; concrete example is Google's practice of allowing its employees to pursue personal projects, or IBM's jam sessions
8. Bounded-Organizational	Constrained Improvisation (Bigley & Roberts, 2001) E.g. extemporaneous improvisations performed with a clear understanding of, respect for, and allegiance to the structures; often occurring in crisis and emergency events

Combination	Concentrated Characterization of OI/Author Attribution
9. Structural-Organizational	Platform Organization (Ciborra, 1999) E.g. organizations that possess readiness to adjust their organizational form that is required under particular circumstances; concrete examples would be emergent organizations in extreme circumstances, entrepreneurial ad hoc teams, project teams, and open innovation systems

**Table 1:** Degree/Level Framework of OI – adapted from Hadida et al. (2015)

The framework, being the most recent cumulative review on OI<sup>8</sup>, undoubtedly accomplishes a number of things necessary to move forward the discussion on OI. One particularly important contribution of the work is the inference that individuals position themselves within an organizationally situated improvisation. In this aspect, focus is given on how the micro-processes culminate to macro-processes and in turn lead to macro-level outcomes. This necessarily opens up the discussion on how individuals and organizations work together in the enactment of improvisation. Likewise, this allows for a consideration of the attributes that each level exhibit in order to undertake a particular type of improvisation. Are there particular qualities that allow organizations to recognize improvisation as a means to achieve certain outcomes in particularly extreme contexts? Which of these factors, ultimately, define whether improvisation will work to the benefit of achieving organizational outcomes or not? On that note, the following subsections will transition to a discussion of the qualities or characteristics of both the organization and the individual that can affect the manner in which improvisation takes place.

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<sup>8</sup> Since the publication of the work of Hadida et al (2015) in the International Journal of Management Reviews, there has been no new consolidating framework on OI. It has instead inspired empirical works on improvisation to be further developed.

### ***i. Organizational Attributes of Improvisation***

Certain attributes at the organizational level are found to have a role in enabling improvisation. In their review, Cunha et al. (1999) present a consolidation of some of the characteristics that scholars have so far argued to be important for improvisation to ensue. At the collective level, they point to cultural and structural characteristics, group composition and size, information flow, and resource access. They argue that experimental culture stems from a set of values and beliefs that promote action and experimentation as a way of dealing with reality. They cite organizations that tolerate errors and espouse what Weick (1998) terms as 'aesthetic of imperfection' as a concrete example (M. P. Cunha et al., 1999). Such organizations are argued to have pro-innovation biases, and provide incentives to 'competent mistakes', i.e. mistakes that result from ideas and not from wrong execution of tasks, to their organizational members.

A complementary characteristic that can affect the likelihood of organizations to resort to improvisation is structure (Batista et al., 2016; M. P. Cunha et al., 1999). Structure denotes some form of organizational control, and can rest anywhere between first level (direct supervision), second level (standardization of processes), and third level (ideology and cultural alignment) controls. Cunha et al. (1999) argue that organizational members tend to use improvisation in contexts where structure, regardless if it is direct or indirect, is presented minimally. Minimal structures tend to present the forms of control invisibly, possibly through cultural or ideological alignment or delegation of

supervisory tasks to peers. This can be a form of control that steers OI around coherent outcomes.

Similarly, group composition can affect the quality of improvisation, arguing in favor of heterogeneous group composition, and smaller group of people. Meanwhile, as regards information, a more fluid information flow is important to ensure alignment of the action across those performing improvisation, where it acts as an integrative tool to coordinate individual actions to address a particular challenge (Villar & Miralles, 2014b).

Finally, based on the literature they considered, Cunha et al. (1999) infer that the type of resource is likely to affect an organizational member's capability to turn their ideas into practice. On the one hand, specialized and single-use resources can thwart improvisation, while on the other hand, general resources that can be flexibly deployed for multiple purposes can aid improvisation through bricolage (Baker et al., 2003; Villar & Miralles, 2014a).

In a conceptual paper that sought to put forth a theory of improvisation, Kamoche et al (2003) also highlight the same characteristics at the collective level. Group size is considered as a critical characteristic, arguing that bigger groups are less likely to improvise because of potentially looser communication patterns. They also highlight minimal structure as a collective level characteristic that can affect the quality of improvisation, which they define as *'shared knowledge among members of a community of practice that allows members to depart from canonical practice, especially when acting together'* (Kamoche, Cunha, & Cunha,

2003). Minimal structures supposedly signal some base conditions that organizational members must satisfy for a performance to be accomplished.

Empirical papers also lend insights regarding the impact of particular characteristics in using improvisation as a coping mechanism in particular environments. For example, Roux-Dufort and Vidaillet (2003) undertake an in-depth case study on a chemical crisis in a warehouse located on the outskirts of Nantes, France. They found that in a situation that supposedly possessed all valid antecedents and justification necessary to undertake improvisation, the members of multiple organizations involved did not resort to its use. They then sought to explore what accounted for this inaction, and ascertain that some characteristics at the contextual, as well as organizational and behavioral levels, can provide an explanation for the ability or inability of an organization to improvise. Contextual characteristics include the sense of urgency and the level of surprise.

They particularly argue that a shared perception of urgency and surprise is important to signal an action to organizational members. They caution, however, that the element of surprise can also stifle the ability to improvise, especially if it is linked with high level of ambiguity. In that case, successfully using improvisation as a coping mechanism in a crisis is to some extent dependent on shared perception across the organizational members involved regarding the contextual conditions, i.e. urgency and surprise, but also equally on low level of ambiguity, i.e. availability of information that can facilitate action.



At the organizational and behavioral levels, Roux-Dufort and Vidaillet (2003) identify flexibility of the role system, presence of communication and interaction across the teams, as well as wisdom and procedural memory to be key characteristics that can bring about improvisation. Their argument of the flexibility of role system somehow relates to the structural characteristic of the organization. Particularly, they define flexible role system as one that allows for mutual adaptation, inversion, or switching of roles among members of the organization (Roux-Dufort & Vidaillet, 2003). This also arguably relates to the concept of 'virtual role system' (Weick, 1993) that helps members to assume particular roles in crisis situations in the absence or the failure of a more concrete structure. Upholding flexibility in role system rests on the presence of two other organizational characteristics, i.e. communication and interaction across organizational members. The stronger the presence of communication and interaction across the organizational members, the more fluid information is likely to be, and therefore the better actions can be facilitated.

Another empirical work on improvisation is that of Vera and Crossan (2005) where they identify and assess various enablers of improvisation among teams and their effects on innovative performance. They posit that improvisation is a conscious behavior rather than a random behavior, and is hence inherently dependent on a number of enablers that are found across the organization and the teams undertaking the action (i.e. improvisation). While they do not make a distinction between levels at which enablers might be found, the characteristics

that they empirically test can be loosely classified between collective and individual level characteristics. At the collective level, they emphasize team composition and norms, culture, and information and communication flow. Team composition involves mostly the extent to which cooperation, trust, goal, responsibility and vocabulary are shared and commonly valued across the team (Vera & Crossan, 2005). Healthy and close team dynamics, they argue, are not easily developed and may be facilitated by structural norms. Meanwhile, as regards culture, they echo the conceptual premises of Cunha et al. (1999), emphasizing the importance of an experimental culture where the organization provides for experimentation and is tolerant of '*competent mistakes*'. Experimental cultures, they explain, are oftentimes manifested in set ups where '*agree, accept,... and add*' as well as '*yes, and...*' are encouraged (Vera & Crossan, 2005). Another characteristic that is usually facilitated at the collective level relates to information and communication flow. Their empirical findings support that real-time information and communication facilitated a more positive relationship between improvisation and innovative performance.

Taken together, the primary studies considered here demonstrate an overlap of some of the core attributes at the organizational level which affect the enactment of improvisation. These are the attributes that are found, upheld, manifested, or nurtured at a level higher than any single individual, e.g. organizational departments, or the organization as a whole. Table 2 provides a

summary of the core attributes identified in literature, and show the recurring attributes.

Primary Authors Reviewed	<i>Content Attribute: Collective Level</i>					
	Culture	Structure	Group Size	Group Composition	Information & Communication Flow	Access to Resource
CONCEPTUAL PAPERS						
Cunha et al. (1999)	X	X	X	X	X	X
Kamoche et al. (2003)	X	X	X		X	
EMPIRICAL PAPERS						
Roux-Dufort and Vidaillet (2003)		(1) (2)			X (1)	
Vera and Crossan (2005)	X	X		X	X	

**Table 2: Synthesis of Collective Level Attributes**

*NOTES: (1) characteristic of 'shared perception of urgency and surprise' is considered to be provided by structure as well as fluid information and communication flow across organizational members; (2) characteristic of 'flexible role system' is considered to be upheld by structure;*

This category includes culture, structure, group size, group composition, information and communication flow, and access to resource. Of the collective level attributes presented, all authors agree on the importance of structure, as well as the process and fluidity of information and communication across organizational members. Note that while Roux-Dufort and Vidaillet (2003) do not explicitly refer to 'structure', their arguments imply the need for it. For example, what they argue as the importance of 'shared perception of urgency and surprise' is something that can be achieved by a structure that enables strong relational link, as well as an open information and communication flow. In the same manner,

their argument regarding the characteristic of *'flexible role systems'* requires a structure that supports what they term as *'mutual adoption'* or *'inversion'* of roles, especially when the situation calls for it.

## ***ii. Individual Attributes of Improvisation***

Another set of attributes that can enable the occurrence of improvisation is found at the level of the individual. Cunha et al. (1999) also identified characteristics that relate to the individual members. This includes leadership style, performative skills, memory, and affective elements. Leadership can help uphold the minimal structure of an organization enacting improvisation. They particularly cite studies that support the role of a leader to direct the organizational members to pursue the purposes of the organization without thwarting or putting into question the occurrence of improvisation, while at the same time keeping in check the span of risks that the organizational members take.

Another individual level characteristic that is important relates to performative skills, i.e. the ability of individuals to depart from organizational routine in favor of improvisation whenever the context warrants it. This relates heavily to individual creativity, as well as memory, which is considered another factor that affects the quality of improvisation.

Citing Moorman and Miner (1998) among other scholars, Cunha et al (1999) present two types of memory: declarative and procedural. The former is defined as knowledge of facts, while the latter is defined as knowledge of action. Declarative

memory is argued to play a crucial role in improvisation because a wide and diverse repertoire of factual knowledge can act as a pillar for creativity, which in turn can inform improvisation. Meanwhile, procedural memory oftentimes configures the inclination of an individual to existing routines and processes in the organization. Hence, higher procedural memory can likely discourage individuals to pursue improvisation, as they tend to stick with routines. Finally, affective element of individuals relates to their resilience to stress.

Similar characteristics were also pointed out by Kamoche et al. (2003), which they term as 'influencing factors', otherwise considered as attributes which determine the quality of improvisation. At the individual level, they include factors such as leadership, selected individual characteristics, as well as memory, among others. Leadership can mold how improvisation is used by the organization in a particular context, and they infer that 'servant' leadership can be an important determinant of the quality and degree of an improvisation (Kamoche et al., 2003). They argue in particular that servant leadership counters the likely phenomena of solipsism of any individual person (Kamoche et al., 2003), which implies that it can bring together the organizational members to a particular goal orientation beyond individual gains and with conscious alignment with the organization. They also highlight the importance of individual characteristics, including virtuosity, skill, sense of trust towards other members of the organization (achieved through communication), creativity, ability to deal with stress, and 'provocative' competence, where the individual avoids over reliance on certain routines. The last

characteristic is closely related to memory, both declarative and procedural, which other scholars also brought to light, e.g. Moorman and Miner (1998).

Roux-Dufort and Vidaillet (2003) do not make an explicit distinction between individual and organizational level attributes, but identify some that are more often manifested at the individual level. This includes wisdom and memory. They define wisdom as the ability of organizational members to strike a balance between over-cautiousness and over-confidence, and the ability to use their experience to remain open to novelty and doubt (Roux-Dufort & Vidaillet, 2003). A final characteristic that they find crucial in the effective undertaking of improvisation is memory, drawing on the findings of Moorman and Miner (1998) in relation to the likely relationship between organizational improvisation and organizational memory. Roux-Dufort and Vidaillet (2003) particularly draw attention to one specific form of memory, i.e. procedural memory, arguing along the same lines as Moorman and Miner (1998) and Cunha et al. (1999) that low procedural memory can encourage improvisation because of low likelihood of organizational members to revert to routines.

Vera and Crossan (2005) emphasize expertise, training, and memory. Expertise, which encompasses the specialized skills and knowledge that individuals bring to the team's task, is empirically found to be moderating a more positive relationship between improvisation and innovative performance. They also acknowledge other manifestations of expertise that help bring about effective improvisation, and these include: formal and informal education, cognitive

capabilities, innate perceptual skills, and personal experience (Vera & Crossan, 2005). Furthermore, they find that individual-level training in improvisation, i.e. when organizational members are actively made aware of how to improvise, and subject their actions to some assessments of learning, can increase the incidence and quality of improvisation. Finally, they also acknowledge the role of memory, which is a finding common across the authors discussed so far. They follow the definition of Moorman and Miner (1998), and empirically test the role of procedural and declarative knowledge stored in systems, structures, strategy, culture, rules, and procedures that can shape the perception or the behavior of those that enact improvisation. They find that access to *'diverse memory resources'* produced results that do not facilitate a stronger relationship between improvisation and innovative performance. Their complementary interview data show that memory sometimes constrained the actions of individuals, citing reasons such as being worried about liabilities that such an unplanned action may have on health, legalities, safety, and related regulatory standards of the organization.

Table 3 below shows a snapshot of where the authors converge in the identification of individual attributes that helps make improvisation happen.

Primary Authors Reviewed	Content Attribute: Individual Level					
	Leadership	(Performative) Skills	Memory	Affective Skills	Expertise	Training
CONCEPTUAL PAPERS						
Cunha et al. (1999)	X	X	X	X		
Kamoche et al. (2003)	X	X	X	X	X	X
EMPIRICAL PAPERS						
Roux-Dufort and Vidaillet (2003)		(1)	X	(1)		
Vera and Crossan (2005)		X			X	X

**Table 3: Synthesis of Individual Attributes**

NOTES: (1) 'wisdom' which is defined as 'the ability to understand, be open-minded, and keep in touch with the present moment and develop creativity' is considered a part of general and affective skills.

Of these attributes, the most recurrent across conceptual and empirical studies is the characteristic, 'skills'. Note that some of the authors compound some attributes to mean the same thing, e.g. Cunha et al. (1999) refer to skills as a manifestation of expertise in terms of the ability to harness a high level of creativity. This general group of skills is however contrasted from a particular type of skill, i.e. affective skills. Where the former (general group of 'skills') refers mostly to manifestations of task- and domain-oriented knowledge and expertise, the latter denotes the emotional ability of individuals to manage, or at best instance, display individual resilience towards stress. Finally, while Roux-Dufort and Vidaillet (2003) do not explicitly refer to general skill or affective skill, the behavioral characteristic they point as 'attitude to wisdom' arguably possesses both attributes. Indeed, they describe 'attitude of wisdom' as the ability of an individual



to balance between over-confidence and over-cautiousness, which requires the affective skills of being present, decisive, and stress-resilient. In the same vein, *'attitude of wisdom'* is also described as the ability to use experience and integrate its potential use in the current situation, which implies drawing on a level of knowledge or other forms of task- or domain-oriented skills.

#### **E. The Questionable Intentionality of Improvisation in Realizing Organizational Goals**

The discussion above brings forth three important arguments:

First, it is generally acknowledged that improvisation is employed by organizations that find themselves navigating extreme contexts. Second, while improvisation can yield positive implications for the survival or ability of the organization to cope with extreme environments, it can also go the opposite way, thus baring the 'dark side' of improvisation. Finally, the perceived 'dark side of improvisation' stems from two things: (a) its emergent nature, which makes it difficult to project what the effects might be for the organization, and (b) the varying levels at which improvisation occurs, which makes it difficult to ascertain whether improvisation is undertaken in favor of the goals of the organization, or as a flight response from the individual who enacts improvisation.

On that note, the state of the literature on improvisation has focused on teasing out the attributes of improvisation, as well as the enactment process of improvisation. This has contributed to a rich understanding of how improvisation occurs, and which attributes at either organizational or individual level can increase the likelihood of its

occurrence. There is, however, as of date, limited knowledge regarding how improvisation relates to the goals of the organization, thus leaving the concept of improvisation as chance occurrence that may or may not work for the organization, and making the ‘intentionality’ or the purpose of using improvisation on behalf of the organization questionable. As a result, the take-up of improvisation as a legitimate means, as opposed to an accidental means, of coping by an organization has remained scant (Leybourne, 2007; Leybourne et al., 2014). Moreover, there remains a lack of understanding on how improvisation is vital for strategy development (Hodgkinson, Hughes, & Arshad, 2016).

Recent empirical work has made a first step in this direction, arguing that improvisation remains an integral part of strategy development (Hodgkinson et al., 2016; Hughes, Hodgkinson, Arshad, Hughes, & Leone, 2017). However, the role of improvisation as an intentional means of pursuing organizational goals has been, at best, implied, and not concretely articulated.

It is thus argued in this dissertation that the key to better understanding how improvisation figures in the overall organizational picture is through understanding how improvisation relates to how organizations are able to realize their goals. This process of realizing goals is known as *organizational effectiveness* (Mitchell, 2013a; Zheng, Yang, & McLean, 2010).

Bringing in the concept of previously established goals of the organization is important because if improvisation is used as ‘a counter-strategy for the failure of strategy’ (Leybourne et al., 2014), it can be assumed that the organization largely

reconfigures its actions to favor the achievement of previously targeted goals. It also helps clarify whether improvisation indeed helps organizations become effective, i.e. realize their goals.

Goals are manifestations of organizational intentionality. The sense of intentionality is attributed to the actors that constitute the organization (B. G. King, Felin, & Whetten, 2010). Following this argument, the organization is regarded as an aggregation of individuals, which in turn renders the organization capable of self-reflection, deliberation, and action that is oriented towards achieving specific aspiration levels. The aggregation of the individual actions results in various organizing processes, which are enacted as the organization continuously makes sense of and responds to various contexts where it is embedded. Goals, in turn, result from a negotiated consensus among various interested actors (Argote & Greve, 2007; Cyert & March, 1963; Thompson & McEwen, 1958a).

The seminal work of Perrow (1961) acknowledges that understanding the behavior of organizations requires a thorough understanding of the underlying goals that they pursue, and in effect teases out two types of goals, namely, official and operative (De Massis, Frattini, Kotlar, & Wright, 2015; Gagné, 2018; Perrow, 1961).

Official goals are usually found in the sworn and published mission and vision statements, annual reports, charters, or public statements of the organization. They are purposely general and do not provide a clear distinction regarding the process of deciding which of the alternative means to pursue in order to achieve the official goals, and neither

do they specify how multiple goals are prioritized, nor how unofficial goals that are pursued by various groups in the organization are treated (Perrow, 1961). Thus, in order to get a more accurate view of how an organization upholds its intentions, it is important to look beyond the official goal and consider a closer look at what he termed the 'operative goals' of the organization (Gagné, 2018; Perrow, 1961).

Operative goals are argued to be more relevant to understanding organizational behavior, as they are manifested in major operating policies and daily decisions of the personnel (De Massis et al., 2015; Gagné, 2018; Linder & Foss, 2018; Perrow, 1961). It can thus be argued that operative goals do not simply show what the organization aspires to be, but what the organization, through its members, set as their target action in order to achieve their aspiration level. In effect, operative goals allow us to peer into the ends sought by the actual operating policies of the organization. Some scholars follow this line of reasoning, arguing that because of the presence of various units, there can be no single global goal (note: reminiscent of official goal), hence organizations, especially complex ones, pursue sub-goals which come in multiplicity (Ethiraj & Levinthal, 2009).

Ideally, the official goals are supported and substantiated by the operative goals. However, Perrow (1961) argues that it can also be the case that the operative goals become the official goals themselves. This is especially the case because official goals tend to be of high abstraction, and therefore, the operative goals being the 'means', become the 'ends' in themselves. The distinction between the two is crucial to understand how improvisation makes organizations effective. It brings about the question as to whether improvisation actually addresses the official, the operative, or both, goals of the

organization. Note that as a construct, organizational effectiveness does not explicitly articulate the types of goals realized. Different models of effectiveness are defined along the lines of *'a well functioning bureaucratic system'* (Etzioni, 1960), the *'ratio of inputs to outputs'* (Katz & Kahn, 1978), the ability of the organization *'to exploit its environment'* (Yuchtman & Seashore, 1967), or meeting *'a set of judgments from their main stakeholders'* (Herman & Renz, 1997). In a more recent study that teased out the definition of effectiveness, it was found that organizations engaged in non-profit work define effectiveness in terms of *'outcome accountability'*, i.e. being accountable for achieving their promised outcomes (Mitchell, 2013b). Considering that organizations engaged in disaster environments enter the field with outcomes, which are both official and operative in nature, promised to their respective stakeholders, organizational effectiveness arguably becomes a linchpin to understanding the role of improvisation among organizations.

#### **F. The Missing Link between Improvisation and Organizational Effectiveness: Surfacing the Research Gap and a Statement of the Research Questions and Objectives**

Ultimately, the main inquiry of this dissertation centers on the following inquiry:

*How does the interaction of individual and collective level attributes among improvised actions of the organizations explain how they can realize their goals, i.e. be effective, in extreme contexts?*

This inquiry is further broken into two parts, in order to particularly address the two related gaps in knowledge that surfaced in the discussion of the literature above.

First, the literature remains reticent in questioning how such previously set goals (which previous scripts are directed for) are realized with improvisation. Where does improvisation figure in the entire process of realizing its previously established goals, i.e. making the organization effective? At present, the literature is confronted by a gap in knowledge regarding the link between improvisation and organizational goals. There is thus an opportunity to conceptualize the process by which improvisation helps realize organizational goals, and thus enable us to conceptually clarify whether improvisation can indeed be intentional, and therefore a legitimate, purpose-driven action that can drive organizations to become effective in disaster environments. On that note, the first specific research question that is addressed in this dissertation is as follows:

**Research Question 1:** *Does improvisation make organizations purposefully effective, and if so, how?*

A second related point that arises from the discussions is that when this improvisation-organizational goals link is conceptualized, it is necessarily linked with the attributes of improvisation that manifest at two levels – the individual and the organization. Presently, the literature treats individual and collective attributes separately from one another. Scholars caution that this separation does not mean mutual exclusivity of one over the other (Hadida et al., 2015). Instead, it is necessary to make an argument that, indeed, organizational improvisation takes place, and that there is a case for OI to be investigated, conceptualized, and included within organization and management discourse. In fact, to further enrich the ongoing discourse on OI, Hadida et al. (2015)

advocate for a more cross-level analysis of OI, where evolutionary paths that allow individuals, teams and organizations to move from one cell to another are investigated.

On that note, this dissertation also seeks to shed some light on this call to investigate the OI using a cross-level perspective of improvisation, acknowledging not just the role of the organizational attributes that enable the likelihood of improvisation, but also the role of the individual as an active member of the organization, from whom the organization's capacity to self-reflect, decide, and enact is drawn. Indeed, there is an opportunity to explore how the individual organizational members bring with them unique attributes that can result in various organizing processes of improvisation. On a related note, there is also an opportunity to explore how certain attributes at the collective level of the organization can shape and bound the actions of the individuals. To an extent, a potential interaction between the individual and the collective level attributes is inferred. In relation to that, it is possible that this interaction can define how the act of improvisation can make organizations effective in disaster environments. This paves the way for the second specific research question that is addressed in this dissertation:

**Research Question 2:** *How do individual and collective level attributes come together in the enactment of improvisation that makes organizations effective in extreme environments?*

The research objectives are specified below:

- a. To conceptualize the process by which improvisation is related to organizational goals;

- b. To explore the embeddedness of individual organizational members in organizing processes to achieve organizational-level goals;
- c. To contribute a case evidence of a cross-level analysis to the field of OI that can further be used to theorize how improvisation is related to organizational goals as a result of interaction between individuals and organizations.

To answer the two above questions, and ultimately address the above-mentioned research objectives, an inductive, interpretivist approach is used. The predominant reason for employing an interpretivist approach is due to the emphasis on organizing process, which is anchored on the subjective meanings created by the agents behind the organizing processes. Indeed, in this dissertation, the variation in the interpretations of individuals that make up the organization are explored in two cases: first, drawing from the experience of small organizations that were already in the site prior to the entry of Typhoon Haiyan, and the secondly, drawing from the experience of large organizations that entered the site after Typhoon Haiyan. Such methodological underpinnings of this dissertation are unpacked in detail in the following chapter on Methodology.



### 3. METHODOLOGY

The previous chapter laid out the research gap and takeoff point for the main research inquiry of this dissertation. Particularly, this dissertation endeavors to understand improvisation as a coping mechanism for organizations to attain specific outcomes in extreme environments characterized by shock, uncertainty, turbulence, and overall disturbance to previously configured resources and processes. It has been argued above that in the literature on improvisation, one overlooked aspect is how it relates to organizational goals. This dissertation thus aims to explore the process by which OI is employed in relation to organizational goals. The main research question is articulated as follows: *‘how does the interaction of individual and collective level attributes among improvised actions of the organizations explain how they can realize their goals, i.e. be effective, extreme contexts?’*

As presented in the preceding chapters, this endeavor underlies the exploration of two processes: first, the process by which improvisation forges a way for the organization to realize their goals in extreme environments; and second, the interaction of attributes at two levels, e.g. individual and organizational, in enabling improvisation.

This aim of this chapter is to provide a detailed discussion of the methodological aspects in undertaking this dissertation. The first section, *Epistemological Underpinnings* explains the epistemology on which this work is grounded, alongside the perspectives that shape the methodology of this dissertation. The second section, *Research Design*, presents case study as a core research strategy of this dissertation. It also provides discussions on

case study tradition, the context and cases considered for work, alongside units of analysis and observation. The third section, *Data Collection*, provides details on strategies employed for data collection, and some reflections and disclosures regarding reflexivity and positionality of my part as a researcher for this work. The fourth section, *Probing Framework and Analytical Approach*, presents the probing framework used to in the data collection and analysis, and consequently provides a snapshot of the approach used to analyze the collected data. The fifth section, *Ethical Consideration*, provides a statement on the measures undertaken to uphold ethics in conducting research in fragile contexts such as disasters. Finally, *Chapter Summary* synthesizes the core arguments of this chapter, and transitions to the following chapter.

## **A. Epistemological Underpinning**

The existing research that generally looks at action-outcome of organizations is represented equally by post-positivist and interpretivist epistemologies. Drawing specifically on the study improvisation as an organizational action, and effects on organization, there is a more interpretivist-oriented epistemological grounding of the said concepts. For example, improvisation is dominated by interpretivist-leaning research with focus on conceptual framing (Crossan, Cunha, Vera, & Cunha, 2005; M. P. Cunha, Clegg, & Kamoche, 2012; M. P. Cunha et al., 1999; Flach, 2014; Hadida et al., 2015; Kamoche et al., 2003; Leybourne, 2007; Vera & Crossan, 2004).

In the same way, the study on organizational goals within a context characterized by extremeness and complexity are represented by interpretivist-leaning epistemology

with emphasis on the interactive process of goal setting and a dynamic and evolving perception of goals over time (Alexander & van Knippenberg, 2014; Ashforth, Rogers, Pratt, & Pradies, 2014; Blettner, He, Hu, & Bettis, 2015; Boettger & Greer, 1994; Bourgeois, 1985; Ethiraj & Levinthal, 2009; Hill, 1969; B. G. King et al., 2010; Martinez-Moyano, McCaffrey, & Oliva, 2014; Perrow, 1999; Thompson & McEwen, 1958a). Note that this is in contrast to the more post-positivist tradition of research conducted on organizational goals in stable and routine environments where emphasis is given on measurable and objective variables on goals and performance (Lant, 1992; Locke & Latham, 2002).

The difference is explained by the perspective of goals as either static or dynamic fixtures of an organization. In routine and stable environments, goals are easily approximated and measured in variables, and adjustments can be anticipated in advance because there are few (or at the very least manageable) disturbances in the environment. However, in contexts characterized by inherent complexity and uncertainty, the goals and actions of the organization are susceptible to changes as they adapt to the fluctuations in the environment (De Massis et al., 2015; Gagné, 2018; Thompson & McEwen, 1958b). In turn, the concept of goal in such contexts becomes challenging to study in its entirety with accurate measures (Fiegenbaum, Hart, & Schendel, 1996). The concept is thus accessible to investigation and exploration according to the perception and interpretation of the organizational members who negotiate and bargain which goals to prioritize, to pursue, and to drop in the face of changing environment.

Consistent with the main objective of this dissertation, i.e. exploring the process by which improvisation makes organizations effective as a result of interactions between individual- and organizational-level attributes, this work is positioned within the epistemological ambit of interpretivism. Interpretivism operates on the assumption that individuals seek understanding of the world that they live and work in (Cresswell, 2009), and that realities cannot be objectified and generalized. In that regard, the objective of researchers is to inquire deeply on various facets of multiple realities (Berger & Luckmann, 1966). Indeed, in undertaking this dissertation, there is acknowledgement that organizations do not have exact similar patterns of action when immersed in extreme environments. Even in the event that all organizations are found to have undertaken improvisation, the actions and context that led organizational members to organize in a certain way may be varied, and therefore ascertaining patterns among organizational actions are heavily rooted on context, the interpretation, and the sense-making processes of the organizational members involved. Consistent with an interpretivist orientation, emphasis is thus placed on the subjective meanings created through human interactions of those managing the context and defining how goals are to be realized.

As such, this dissertation does not seek to ascertain findings that are generalizable at the statistical level, i.e. findings that confirm or disconfirm a specific theory. Instead, it aims to uncover a facet of how organizations realize their goals through improvisation by means of an iterative and reflexive process of data collection from the individual organizational members, as well as from institutional documents and reports that are authored or otherwise vetted by the organizations themselves. The findings are aimed at

analytical generalization (Buchanan & Denyer, 2013; Yin, 2009), which focus on a particular set of results that can inform the way in which a likely theory on improvisation and organizational effectiveness in extreme environments can be generated. The focus of inquiry is also grounded on the interactions of the organizational members with various factors such as structure, processes, and resources in an extreme context, and how these interactions consolidate to produce particular outcomes. The outcome of realizing organizational goals is inferred in this dissertation as having resulted from various narratives of organizing processes, and in turn, each narrative is considered a representation of one facet (of the many) of how improvisation as an action is used to make organizations effective.

To this end, the methodology of this dissertation is developed with due consideration of the following perspectives:

1. *A process (not a variance) approach.* Van de Ven (2007) makes a distinction between two approaches in research, e.g. variance and process. Whereas the former undertakes a backward approach to understanding outcomes by means of pinning down causal factors, the latter investigates outcomes using a forward approach, where culmination of events leads to specific outcomes. Citing the two basic types of human intelligence, i.e. the 'paradigmatic, logico-scientific' and the 'narrative' modes of thought, (Bruner, 1986), Van de Ven (2007) inferred that these types represented two basic epistemological approaches to knowing, which ultimately boils down to a 'what' (variance) approach, and 'how' (process) approach.

This dissertation is informed by a process approach<sup>9</sup> (Chia, Langley, & Van De Ven, 2004; Tsoukas, 2005; Tsoukas & Chia, 2002; Van de Ven & Poole, 2005) to understanding improvisation, mainly because its core objective is to understand how improvisation forges a way to a particular outcome, i.e. organizational effectiveness. As explained in Chapter 2, the occurrence of improvisation is prompted by antecedents that are characterized by shock, an element of surprise, and a sense of urgency to respond to a certain situation. These antecedents are usually present in specific events that trigger actions that lead to improvisation, and ultimately, to achieving an outcome. The trigger event and the actions that follow until an outcome is achieved are crucial points of analysis, because they exhibit rich details that can allow us to peer deeply into organizing processes. On that note, this dissertation uses an event as a precursor to improvisation and identifies definitive actions undertaken by the organization, which is conceptualized as being represented by varying levels of authority, to understand the process by which

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<sup>9</sup> Note that process researchers make the distinction between ‘strong’ and ‘weak’ process view. The idea is noted to have surfaced in the work of Tsoukas (2005), distinguishing ‘strong’ and ‘weak’ views of organizational change, and later articulated in the Call for Papers by Chia, Langley and Van de Ven (2004) for the First Organization Studies Workshop. They describe ‘weak’ process view as “important but ultimately reducible to the action of things”, whereas ‘strong’ process view “deems actions and things to be instantiations of process-complexes”. Both views are important for the advancement of organization studies, and much research abound in the former (i.e. ‘weak view’). In a more in-depth conceptualization of ‘strong’ and ‘weak’ process views, Van de Ven and Poole (2005) argue that the core distinction between the two views lies in the ontology: where ‘weak process ontology’ considers organizations as entities that retains its identity while undergoing changes from one state to another over a period of time. Meanwhile, ‘strong process ontology’ considers organizations as a *reification of processes*, where the organization is “a process that is continuously being constituted and reconstituted” (Van de Ven and Poole, 2005). Based on this reflection, this dissertation positions itself under the ambit of a strong process ontology, and the analysis that emerges from this work seeks to be understood within a strong process ontology, as the organization is treated as an entity that emerges and re-emerges from changing organizing processes given the context it navigates, and that the goals they draw up are rooted in constant process of negotiation (as discussed in Chapter 2).

improvisation is used as a mechanism to realize organizational goal. As will be explained in more detail in the following sections<sup>10</sup>, the event used in this dissertation is Typhoon Haiyan (locally known as 'Typhoon Yolanda'), a Category-5 typhoon that hit the central part of the Philippines in November 2013, and overwhelmed the capacity of many disaster critical organizations to continue their operations and achieve their previously established goals. The identified antecedents to improvisation i.e. unprecedented, complex, uncertain, a shock, (M. P. Cunha et al., 1999) were present in the said event.

2. *Organizations as an organizing (not as a static) entity.* The organization is treated in this dissertation as a culmination of the actions of various actors that comprise the organization. In effect, the organization is considered in its active state of 'organizing' (Weick, Sutcliffe, & Obstfeld, 2005b), where the role of the individual agents as active molders of organizational outcomes is highlighted. Indeed, Weick (1993) emphasized that improvisation can be contained within the ambit of *adaptive organizing*, where members of the organization exhibit specific capabilities that include, among others, openness and a level of comfort to the malleable nature of processes and structures.

Thus, while this dissertation uses organization as a unit of analysis, it also consciously acknowledges the role of the agents with various levels of authority in the organization. As explained in the later part of this chapter<sup>11</sup>, three

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<sup>10</sup> Refer to 'Context: Four Days of Lull Post-Typhoon Haiyan and the Weeks that Followed in Leyte, Philippines' on page 66)

<sup>11</sup> Refer to 'Organizations and Organizational Members in Active State of Organizing as Units of Observation' on page 73

overlapping levels of authority are tracked in the organization: the level of the institution, the decision-makers, and the field personnel who undertake operative duties and targets set by the institution.

3. *Extreme (not routine) context.* Improvisation has been studied in routine and non-routine contexts alike. For example, improvisation can transform an organization over time without any external disruption because of the incremental effect of improvised actions that organizational members introduce to routine processes (Orlikowski, 1992). However, much of the literature uses a non-routine context to explore OI, and such non-routine contexts can include industry-specific hyper-competition, emergence of processes among newly established ventures, and extreme situations like disasters and crises.

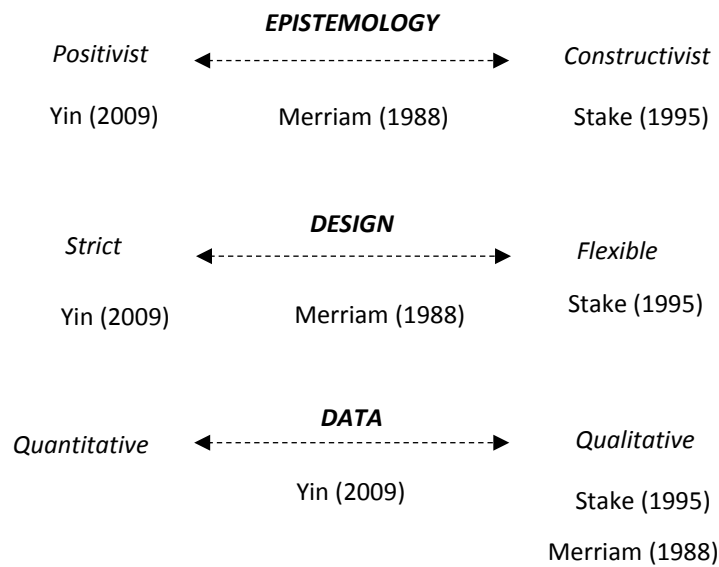
This dissertation is context-specific to extreme environments which is characterized by shock or disturbances that can overwhelm the capacity of the organization to act in a pre-meditated manner. In particular, it uses the context of a disaster arising from a natural catastrophe, i.e. Typhoon Haiyan. Extreme environments can make it prerogative for organizations to rethink their existing resource and process templates in a time-constrained setting, where inaction can mean more than material losses but also irreversible immaterial losses. Therefore, in such environments, the act of improvisation becomes magnified, which in turn makes it feasible to address the objectives of this dissertation. For example, extreme contexts can be concretized chronologically and have



discernible events, which makes it feasible to identify the points at which improvisation may have occurred and how one action led to specific results.

## B. Research Design: Case Study

Case study is used as an approach to address the main inquiries in this dissertation. In classic case studies, the aim of the researcher is to be as close as possible to the ‘world’ it seeks to study, e.g. ‘world of managers’, and interpret this context and its underlying problems from the inside, with an aim to provide a thick description of both the unique and typical experiences that can lend themselves useful for the development of theory and further studies (Dyer & Wilkins, 1991).



**Figure 2: Case Study Traditions**

Note: Consolidated and adapted from Yazan (2015) and Thomas (2011)

As a research strategy, the case study approach has been undertaken using varying traditions that underpin specific epistemological orientations (Thomas, 2011; Yazan, 2015). Figure 2 provides a snapshot of the core authors around whom specific traditions of case study evolved. Yin (2009) provides a step-by-step process that are to be strictly followed in order to address issues of rigor and validity that the positivist tradition concerns itself with. In contrast, Merriam (1988) and Stake (1995) espouse a more flexible and fluid approach to cases, which is consistent with an interpretivist/constructivist perspective.

The difference between the approaches of Merriam (1988) and Stake (1995) are subtle, in that one approach favors a freer and more open design than the other. For example, Stake (1995) encourages a design that is flexible to major changes even while the research is already being conducted. The only concrete aspect of the case study design from a *Stakian* perspective is an identification of initial set of issues, which can shape more focused research questions. He argues that issues can be used as a '*conceptual structure that can force attention to complexity and contextuality*' (Stake, 1995).

Meanwhile, Merriam's (1988) approach to case study design is a combination of a *Yinian* and a *Stakian* design: it is flexible to the extent that design may or may not precede data collection, given that she acknowledges the diversity of thought and purpose that goes into sampling strategy that is consistent with an identified issue or problem. However, it is not as free-form as a *Stakian* perspective in that she suggests potential guidelines that researchers need to be cognizant of throughout the entire research process – including pre-field work and post-field tasks.

Despite the semblance that seems apparent with Yin's (2009) approach to case study because of the procedural guidelines provided by Merriam (1988), it is important to note that the two draws difference in their epistemological roots. For example, Yin (2009) provides prescriptive steps to ensure validity and reliability, while Merriam (1988) only uses the guidelines to help systematize a researcher's foray into qualitative work. In other words, where Yin's (2005) approach is aimed at meeting standards of validity and reliability (very positivist notions), Merriam (1988) and Stake (1995) alike contend that it is not possible to apply these notions into qualitative inquiry that stems from interpretivist epistemology.

Within the field of organization and management studies, case study is also often used as a strategy to address research inquiries. Two prevailing methodological templates for the use of qualitative data are that of Eisenhardt (1989b) and Gioia (2004) (Langley & Abdallah, 2011). Eisenhardt (1989b, 1991) pioneered the use of case study to build theories but is post-positivist in nature. Meanwhile, Gioia (2004) draws from an interpretivist foundation through in-depth exploration of a case (Gioia, 2004; Gioia, Corley, & Hamilton, 2012). The purpose of a case is to capture and model informant meanings, and search for informants' understandings of organizational events (Langley & Abdallah, 2011). The resulting product of a case is thus directed towards a process model.

The design of this dissertation is informed by the interpretivist-leaning tradition of Merriam (1988) and Stake (1995), and inspired by the Gioia methodology. It is informed by Merriam (1988) and Stake (1995) in three aspects: first, it follows a flexible and non-linear research process, where the research questions emerged both from perceived

issues (or otherwise known as gaps) in the literature; second, there is an iterative process of going backwards and forwards between the literature and the data. For example, the probing framework is derived from the literature, but is complemented by the collected data, that is eventually expected to surface particular narratives that can inform the generation of a process model; and third, cases are sampled purposively. Meanwhile, it also derives points from Gioia (2004) in its analytical process of surfacing the perceptions of the individuals that comprise the organization, and ultimately forming a process narrative of the organization itself.

These guiding methodological principles are more concretely implemented in the design phase of the research. The following subsections provide more detailed discussions of (a) the context, (b) the case definition, (c) units of analysis and observation, and (d) the selection of observations for each defined case.

***i. Context: Four Days of Lull Post-Typhoon Haiyan and the Weeks that Followed in Leyte, Philippines***

The context used for this dissertation is a single event, Typhoon Haiyan (also locally known as Typhoon Yolanda), which hit the Philippines in early November 2013. It is considered as one of the most destructive cyclones ever recorded, causing heavy rainfall, flash floods, and landslides throughout the Philippine islands, especially in the following provinces of the Eastern Visayas region (see Figure 3): Leyte, Samar, Cebu, Bohol, and Panay (EC-ECHO, 2014).

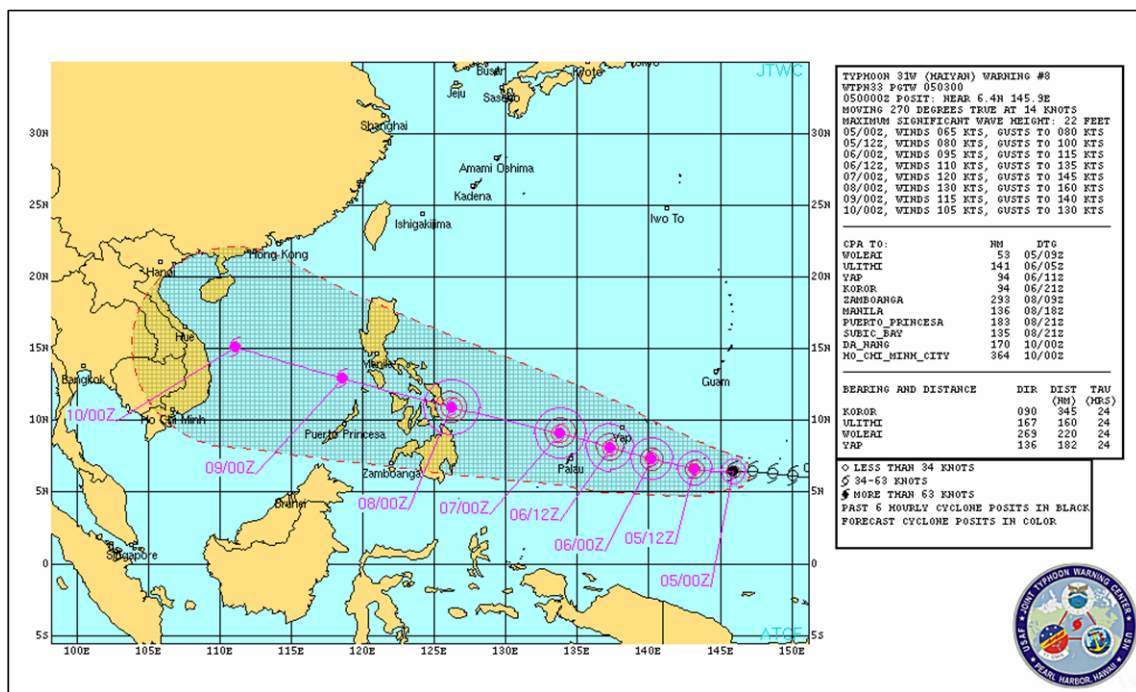


Figure 3: Map of Typhoon Path (image taken from Rappler citing Joint Typhoon Warning Center, US)

In anticipation of the typhoon, national authorities took the lead in ensuring that all critical organizations<sup>12</sup> have undertaken sufficient preparation, including early evacuation of communities, stocking of basic needs including food and water, and task assignments and likely contingencies. Figure 3 illustrates the path of the typhoon, which was initially predicted to be a Category-4 typhoon, but evolved into a Category-5 typhoon as it started to make landfall. This dissertation particularly explores the experience of organizations from the locality of Leyte, as shown in Figure 4. Prior to the storm, the communities and organizations were generous, and to an extent comfortable, with the preparations because of their previous experience with typhoons (Chughtai, 2013; IFRC, 2014). Leyte, in general, has had

<sup>12</sup> *Critical Organizations* are referred to in this dissertation as established private or public sector organizations that are critical to the disaster response.

previous experience with typhoons – some of the biggest climate-related disasters they have experienced include the 1991 Ormoc Flashfloods, the 2003 Southern Leyte – Surigao Disasters, and the 2006 Leyte Landslide that resulted from heavy rainfall. A report also confirms that the region is considered one of the areas that is most vulnerable to sea level rise and ultimately flooding risks (Jabines & Inventor, 2007). However, as the 2013 Typhoon Haiyan evolved into Category-5, it also brought with it a storm surge, which overwhelmed the preparations and the capacity of the community, and more importantly the authorities and related disaster critical organizations.

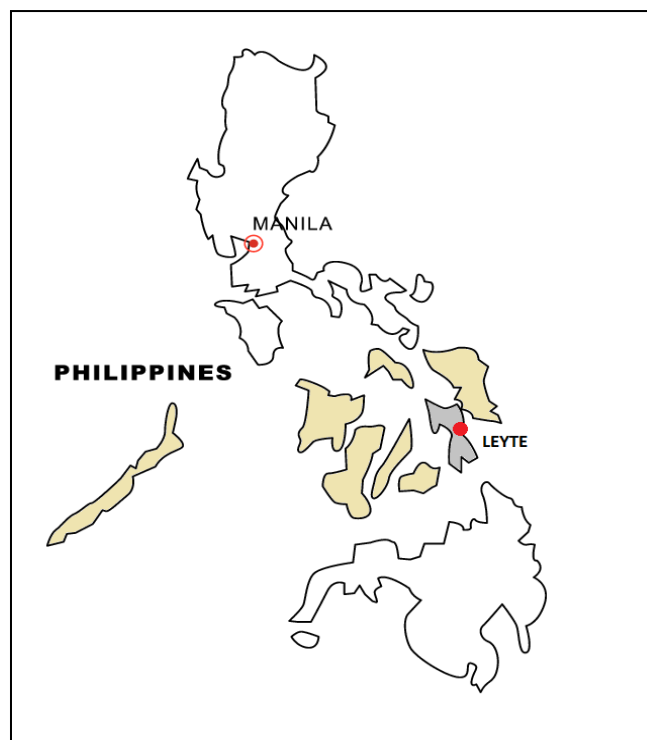


Figure 4: Localized Geographical Context of the Dissertation

There

was a

mismatch of expectations regarding the typhoon, which contributed to the uncertainty and complexity of the situation. First, prior to Typhoon Haiyan, a

category-5 label of a super typhoon was deemed unimaginable for the community, the authorities, and related organizations because the highest level of typhoon experienced in the past was category-4. Second, reports also mention that the language used to describe the typhoon was '*too scientific*' – and failed to deliver the message of a potential storm surge, which is more colloquially understood as a 'tsunami'<sup>13</sup>. Third, townspeople described the day before the typhoon a calm, sunny day - it simply did not look like there was going to be a super typhoon.

The resulting damages and casualty after the typhoon included over 6,000 reported deaths, around 28,000 injured, and 4 million displaced people (Chughtai, 2013; EC-ECHO, 2014; IFRC, 2014). The province suffered loss of communications, electrical power, transport access, availability of water, and health services. The local authorities also initially had some challenges in maintaining security and order. The typhoon made landfall on 8 November 2013, and there was a moment of lull in the few days that followed – especially because it was virtually impossible to obtain information about the province for a few days after the typhoon. On 11 November 2013, the Philippine Government declared a national state of calamity to expedite the relief operations and enable entry of foreign support.

The four days between 8 and 11 November 2013 were intense and crucial for the critical organizations situated locally, as they had to make do with and make

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<sup>13</sup> Scientifically, tsunamis and storm surges have different causes. The former is caused by an underwater disturbance like earthquakes, mudslides, or volcanic eruptions, while the latter is caused by elevated sea levels that arise from low pressure systems. However, the community regards the storm surge that occurred in Leyte as a 'tsunami' because of popular knowledge about the Indian Asian Tsunami in 2004, and because of the similar form and effect it had on Leyte.

sense of their pre-established resource and capability configurations. Likewise, the first responders who also entered the scene within these first few days had come in blind, and anticipated a level of flexibility with the way that they configured the resources they would be bringing in. This continued for a few more weeks until external help have been cleared to mobilize support for the said organizations. Decisions on the definition of cases, alongside selection of observation per case, and resulting analysis are thus centered on the geographical context of Leyte, Philippines as well as the temporal context surrounding the organizations within the described *four days of lull post-typhoon Haiyan and the weeks that followed thereafter*.

## ***ii. Cases: Organizations in the Act of Organizing***

Stake (1995) defines a case as a ‘specific, complex, functioning thing [...] with an integrated system that has boundary and working parts’ (Stake, 1995; Yazan, 2015). In this dissertation, organizations with boundary characteristics, specified purpose, and capability to intend and undertake actions are considered as *cases*. In particular, two cases are identified in this dissertation, based on variations in boundary characteristics such as size (i.e. small or large organizations), scope of service (i.e. national or local scope), and the variation in their time of involvement on the field before the typhoon entered (i.e. field entry before the typhoon or after the typhoon).

Size, scope of service, and closeness to the field prior to the typhoon are characteristics used to define the cases in this dissertation because of the degree



of variability they can provide in exploring improvisation. First, size predisposes an organization to a particular type of structure that may or may not enable improvisation (M. P. Cunha et al., 1999). Second, the scope of service can provide an indication of the organization's experience with various types of incidents and emergencies, which may have implications in the way that the organization undertakes various actions, including improvisation, to cope with the disaster. This can provide the opportunity to observe various affective and performative skills of individual organizational members as well as pre-established templates for action of the organization, and how they allow for the occurrence of improvisation.

Lastly, identifying whether the organization entered the field before or after the typhoon happened has implications with the way that the organization configured its official and operative goals, and how organizational members on the ground work around the constraints to realize the goals of the organization prior to the typhoon. For example, organizations that entered the field after the typhoon occurred will likely have at their disposal more resources than those who were already in the field even before the typhoon made landfall. Likewise, the human resource capacity of those who enter the field after the typhoon will have been subjected to less stress than those who were already on the field a priori. In the latter, there is a likelihood that the human resource capacity will have been victims of the typhoon themselves, while ensuring that they are fulfilling the mandate of their respective organizations in the aftermath of the typhoon.

The cases in this dissertation therefore consist of organizations with similar characteristics. Each case, which is a conglomeration of organizations that help explicate improvisation and the process by which it is linked with the realization of organizational goals, is a unit of analysis.

Two cases are drawn in particular (refer to Table 4):

Case Characteristic	Case 1	Case 2
<i>Size</i>	Small	Large
<i>Scope of Service</i>	Local	National
<i>Closeness to the Field Prior to Typhoon</i>	Already on the field pre-typhoon	Entered the field post-typhoon

**Table 4: Case Characteristics in this Dissertation**

On the one hand, *Case 1* consists of organizations that operate on the ground even before the typhoon made landfall, are generally small, and whose scope of services are bounded locally within the region. On the other hand, *Case 2* consists of organizations that were mobilized after the typhoon, are generally large corporations, and whose scope of services extends nationally across the country.

Moreover, the types of organizations that are considered in the cases are disaster critical organizations, i.e. organizations that play a crucial role in the immediate relief and restoration of normalcy in the society after a disaster. The Sendai Framework for Disaster Risk Reduction emphasizes the importance of resilience among critical organizations, which include organizations that provide basic services such as water, transportation, energy and health and education (Pearson & Pelling, 2015; UNISDR, 2015). Public organizations that coordinate and

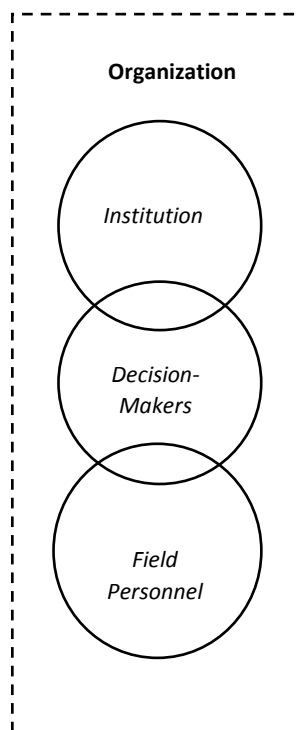
provide relief, including the military and related emergency management organizations, are likewise considered as candidate observations for the case.

Given that the objective of this dissertation is to draw inferences from the way that improvisation is undertaken to realize particular goals, it is imperative that the cases demonstrate contextual conditions that may push them to undertake some form of improvisation. Hence, the cases highlight organizations that are mandated to continue their operations during the course of the typhoon and the critical period that follows thereafter. In the following section, the selection process of organizations that are observed per case is discussed.

### ***iii. Organizations and Organizational Members in Active State of Organizing as Units of Observation***

As mentioned in the previous section, each case consists of a number of organizations that share common characteristics. As such, when *case* is mentioned here, it pertains to a collection of multiple organizations that are argued to be similar. In keeping with the objective of this dissertation to draw inferences regarding the processes by which improvisation relates with the realization of organizational goals as a result of interactions between two levels (i.e. the organization and the individual), each case is observed from the vantage points of the said two levels.

To enable this, it is necessary to conceptualize the organization as an entity that is represented by varying representations of authority: the institutions, the decision-makers, and the field personnel. Articulating these three representations allows for the clear delineation of which data may be speaking for the organizational-level attributes, and which data may be speaking for the individual-level attributes.



**Figure 5: Conceptualization of Organization as Unit of Observations**

As shown in Figure 5, the topmost representation of authority is labeled as the institution, which represents established head-figures, and institutionalized practices or customs of the organization that shape the official goals of the organization. Decision-makers and field personnel draw and derive their actions from the institution. The institution defines the boundaries of organizations in terms of processes, structure, and official goals. The institution can come in the

form of established procedures and standards that are written, vetted, and publicized across the organization, or through head figures such as C-suite or ministerial executives. Institutions often intersect with decision-makers, partly because of the close interaction that C-suite and ministerial executives have with them especially when diffusing or bargaining targets and policies, among others. Almost exclusively, data collected from the institution are considered data extracts that speak for the organization.

Meanwhile, decision-makers are represented by unit heads in organizations that define the operative goals of the organization in support of the institution. At the same time, they have close proximity to the field personnel. As such, data extracts observed from them can speak for either the individual or the organizational level.

The final component to the organization comes in the form of the field personnel. The field personnel are comprised of managerial, supervisory, and rank-and-file organizational members who are bound to undertake technical and role-specific actions that are mandated by the two other higher representations. Middle managers, including supervisors, also belong to this group, who are considered to have close interactions with the decision-makers. Action is rooted in the mobilization of the field personnel, and in this regard, the data collected from this representation speaks mostly about the individual level attributes.

Ultimately, the institutional representations provided the opportunity to access data that speak at organizational level, the decision-makers provided the opportunity to access data that speak for both the organizational and the individual levels, and finally, the field personnel mostly provided the opportunity to access data that speak at the individual level.

#### ***iv. Selection Procedure of Case Observations***

Non-probabilistic sampling, particularly purposive sampling (Miles, Huberman, & Saldana, 2014), predominantly guided the selection procedure of the cases. As emphasized throughout this chapter, this dissertation aims at analytical instead of data generalization. Moreover, the selection process for case observations is purposively chosen to ensure that they represent the experience of the organizations with very specific contexts.

A process was followed to obtain access to organizations that are potential candidates for inclusion in the study. The selection procedure was undertaken with view not only to the core objectives of this dissertation, but also to the issues that many scholars undertaking disaster research face.

Preparatory research, including the finalization of the literature review, definition of the research gap, and determination of concrete research questions that shaped the main inquiry and objectives of this research were all conducted in Barcelona, Spain. While there are a number of contexts that fit the criteria necessary to explore improvisation, the decision to use Typhoon Haiyan in the

Philippines as a context for this research was due to reasons of access and time. These two factors can become some of the prominent issues scholars face when conducting disaster research (Rodriguez et al., 2007), and it was important that they were addressed accordingly in the selection process of observations for the cases defined in this dissertation.

First, being a researcher that is also a native of the Philippines made it less challenging to negotiate access to selected organizations, as opposed to when the site would have been in Spain. Issues of language barrier, pre-established networks, and familiarity with local procedures and likely bottlenecks affected my ability to access any particular site.

Meanwhile, time is also important to ensure a degree of contemporariness that is justified for a case study. The typhoon occurred in November 2013, and the process of selecting observations for the two cases began in July 2015. The time that had lapsed between the event and the data collection process allowed the organizations time to reflect upon and also accumulate records and reports that can contribute to the body of data that can be used in this dissertation. At the same time, two years also allowed the organizational members, who in turn became core informants for this dissertation, reasonable time to overcome to an extent their respective states of vulnerability.

Access was negotiated remotely from Barcelona among organizations that were candidates for inclusion in the study. From the list of about 30 candidate

organizations, a total of five organizations agreed to participate, and one additional organization agreed to partake as a pilot study<sup>14</sup>. Consistent with the conceptualization of an organization discussed in the previous section (see Figure 5), each organization is observed through the institutions, the decision-makers, and the field personnel that represent the organization. A snapshot of the final list of observations per case, alongside the respective organizational representative is provided in Table 5.

Organizational Representative	CASE 1 Observations			CASE 2 Observations	
	<i>Local District Water Distributor 'Water District'</i>	<i>District Hospital 'Town Hospital'</i>	<i>Local District Energy Distributor 'Energy District'</i>	<i>Military 'HQ'</i>	<i>National Tele-communications 'Telco'</i>
Institution	Local Water Utilities Association; Commission on Audit	Department of Health	National Electrification Administration; Power Reform Act; Department of Energy	Department of Defense; Philippine President as Commander in Chief	CEO and related C-suite executives; In times of disaster – related institution is the Philippine Government
Decision-makers	General Manager	Chief of Hospital	General Manager	Appointed Ground Commander	Vice President
Field Personnel	Engineers; Administrative Staff	Resident Doctor; Nurses; Medical Aid; Utility Staff	Engineers; Linemen; Utility Staff; Administrative Staff	Soldiers; Rank below appointed commander	Engineers; Communications Team; Administrative and Technical Staff

**Table 5: Final List of Observations per Case and Corresponding Representative per Organizational Level**

<sup>14</sup> A pilot study was conducted to iterate the data collection procedure that was used to obtain data from the selected observations. The organization that agreed to partake as a pilot study is an international non-governmental organization that was deployed to Leyte after Typhoon Haiyan.



*Case 1* consists of three organizations that locally manage water distribution, medical services, and energy distribution. All three organizations are based in a second-class municipality in the northern part of Leyte, Philippines, with about a population of 51,345 as of 2015:

1. *Local District Water Distributor (Water District)*. *Water District* is a small, local organization in Leyte, Philippines that provides services to a total of four municipalities including its home base. It is a government-owned and controlled corporation (GOCC), which entails implications on their structure, processes, as well as goal orientation. As a GOCC, representatives at the decision-making level are answerable to a national regulatory board on water distribution services in the country. The institution that precedes the decision-making level is represented by regulatory laws set by the government, as well as directives from government officials. For example, the procurement processes of resources, as well as determining the water tariff that are to be paid by the consumers are determined at the institutional level. At the decision-making level, strategies are crafted with due consideration of the targets set by the institution as well as existing regulations and other constraints. Meanwhile, at the level of the field personnel, strategies and targets are enacted operationally.

As a GOCC, *Water District* is dependent on revenues collected from the consumers. As a whole, the organization is oriented towards a goal

of balancing profit with service. Realistically, the profit is crucial to ensure good service, including investments to newer equipment and state of the art technology.

The institution is represented by various authorities from the national government, including the Commission on Audit (COA) for procurement processes, and the Local Water Utilities Administration (LWUA) for determination of water tariff, as well as related standards and regulations regarding water distribution. The decision-making level is meanwhile represented by a designated General Manager who oversees the operations of the organization across the municipalities it covers. The General Manager interfaces with the institutional representatives, where feedbacks are reported, issues and concerns are discussed, and other points regarding the standing of the organization are negotiated. Meanwhile, the level of the field personnel is represented by engineers and rank and file staff that render technical and administrative support to the business operations of the entire organization. The General Manager also interfaces with this level with a capacity for oversight and management.

2. Local District Hospital (Town Hospital). *Town Hospital* is a small government hospital classified as Level-1 Primary Hospital, with a capacity for 25 beds and can provide service and facilities for trauma, surgery, maternity, and other basic health services. It is the only

hospital in the municipality, and is spaced within at least 40 kilometers from the other general hospitals in other municipalities in the province. As a government entity, their goal is service-oriented. The priority is to ensure minimal casualty and render continuous health provision to the population in the municipality. The directives on targets as well as regulations, laws, and related tasks are mandated at the institutional level by the Philippine Department of Health. Representatives at the level of decision-making are thus answerable to the Department of Health and are bound by laws, standards, structure, and processes prescribed at the institutional level.

In particular, the institution is represented by the ministerial authorities of the Philippine Department of Health, including the laws, policies, regulations, and processes that they uphold. The decision-making level is represented by the Chief of the Hospital, who oversees all subordinates, but also interfaces with the institutional level. The decision-making level interacts between the two other levels – on the one hand, it negotiates and coordinates with the institutional level what targets are set, and what related policies, standards, and law must be upheld. On the other hand, the Chief of Hospital also feedbacks as well as brainstorms with the field how the targets will be achieved. Finally, the representatives at the level of the field personnel include resident doctors, nurses, medical personnel, and utility personnel.

3. Local District Energy Distributor (Energy District). *Energy District* is structured in the similar manner as *Water District* in aspect of ownership, scope of service, as well as goal orientation. Like *Water District*, *Energy District* is also a small GOCC that is answerable to the regulations, standards, policies, and laws of the government. As a result, a governmental law known as the Electric Power Industry Reform Act of 2001 created a pricing methodology for setting the price of energy. As a GOCC, the income of *Energy District* is not subsidized by the government, but rather depends on the collection from their consumers. On that note, central among their organizational targets are oriented towards generating revenues.

The institution is represented by high authorities from the national government, which include the following: the National Electrification Administration, which oversees the electrification targets at the rural areas of the Philippines; the provisions in particular laws, documents, and policies such as the Power Industry Reform Act in 2001 and the Wholesale Electricity Spot Market which regulates the pricing methodology for energy; and the Department of Energy, which provides a universal plan and leads the crafting of policies across energy distributors in the country. Meanwhile, the decision-making level is represented by a General Manager that oversees the operations of the organization at its home base, ensuring that the targets decided at the

institutional level are upheld. The level of field personnel is represented by engineers, linemen, and rank-and-file staff that render technical and administrative support to the business operations of the organization.

*Case 2*, on the other hand, consists of the Philippine Military and a privately operated national telecommunications provider. Both organizations have a national scope in service, and entered the disaster site after the typhoon happened:

1. *Military (HQ)*. *HQ* is a large government organization that is mandated to ensure security of the country against man-made and natural threats. There are three major services within the organization, including the Philippine Army (for ground warfare), the Philippine Navy (for sea warfare), and the Philippine Air Force (for air warfare). Whenever there are emergencies arising from natural catastrophes, the Philippine Military as a whole engages outfits from all three groups to cover relief operations. Being a government entity sworn to provide security and protection of the country, the goal of the organization is oriented towards service.

*HQ* follows a hierarchical chain of command with strict representations at levels of institution, decision-making, and field personnel. The institution is represented by the President of the Philippines, the Secretary of the Department of National Defense, and

the respective commanding generals. It is possible that the institution is one and the same with the decision-makers because of the nature of command system in the military, but there are also instances when the decision-makers who undertake operational decisions in relation to tactics and strategy are appointed by the institution itself. On that note, the decision-making level can also be represented by military officers who were appointed for a particular mission. Finally, the level of the field personnel is represented by military personnel following the chain of command from the institutional and the decision-making level.

2. National Telecommunications Provider (Telco). Telco is one of the major telecommunications providers in the Philippines. It is a privately run organization that has over 60 million cellular and broadband subscribers across the country, and over 5000 employees. The institutional level is represented by the C-suite executives. This level provides the over-all direction and official goals of the organization in coordination with its stakeholders. Meanwhile, the decision-making level is represented by Vice Presidents who head specific business units as well as Directors who head various divisions. This level interfaces with the C-suite and is in charge of putting in place operative targets and implementing necessary conditions in order to meet the official targets. Lastly, the level of field personnel is represented by supervisors, project management heads, team leaders, and all other rank-and-file

employees provide technical, administrative, and business support in the implementation of the organization's targets.

While the organization is privately managed, in disaster situations, it becomes tightly coupled with the government. During disaster situations, the organization becomes bound by law to partake in monitoring continued provision of communication services not just to their subscribers but also in aid of the communication needs of the network established by the government to for immediate disaster response. To this end, governmental directives for provision of communications during extreme events become an extension of the institutional level that the decision-makers and field personnel have to take into account.

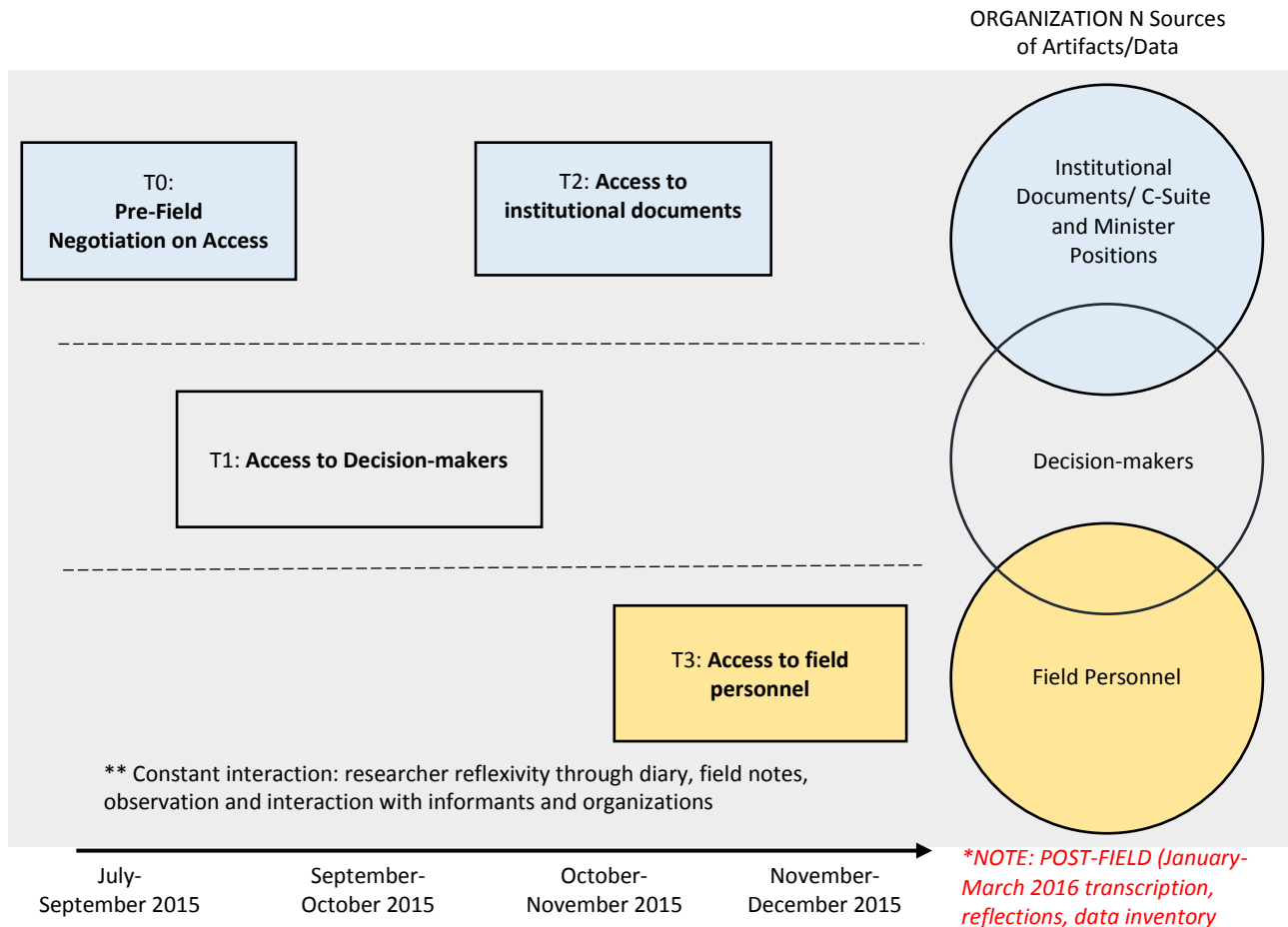
## **C. Data Collection**

This section provides details on the strategies followed for the collection of data, including the types of data collected, and some reflections on my positionality as a researcher entering the field.

### ***i. Strategy***

As mentioned in the previous section, access to the case observations were negotiated remotely from Barcelona prior to the field visit in the Philippines. This activity defined the strategy for data collection, which took place in three phases

over the course of six months from July to December 2015. Figure 6 provides a snapshot of the data collection strategy over time.



**Figure 6: Data Collection Strategy**

All access was initially negotiated at the institutional level during T0, through exchange of emails, endorsement letters, and phone conversations coordinated by a gatekeeper.

In both cases, the gatekeepers are not members of the organization, but instead have close relations with representatives from the institutional level through their personal network. My affiliation as a researcher with the



gatekeepers, in turn, are afforded by my network from previous employment in the Government of the Philippines, as well as from my personal ties with the La Sallian community in the Philippines. At this stage, organizations that expressed their interest to participate referred me to representatives at the decision-making level for interviews.

I flew to Manila, Philippines in August to begin my field work. The data collection commenced at T1, where I was granted access to decision-makers and conduct interviews with them. This took place in Leyte (*Case 1* organizations) as well as Manila and Zamboanga (*Case 2* organizations)<sup>15</sup>. While interviews were being conducted, the decision-makers mentioned some documents and reports that contain details which may be considered as data extracts for my dissertation. I took note of these and inquired on the possibility of obtaining access to such documents. Some organizations readily provided these at the time of asking, while others said that they first needed to seek approval from the institution. At T2, I collected public reports released by the organization and vetted by the institution, and followed up on the possibility of obtaining access to specific documents such as situational reports and annual reports of the organizations. This overlapped with T3, where I conducted a second visit to the organizations and conducted interviews with the field personnel. The field personnel ranged from supervisors to engineers and rank-and file staff.

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<sup>15</sup> Note that *Case 1* organizations are all based in Leyte while *Case 2* organizations are based in Manila. At one instance, I had to meet the decision-maker of *HQ* in Zamboanga because he was stationed at that moment in Southern Philippines.

Throughout the data collection process from T0 to T3, I also accumulated field notes, memos, and reflections in three volumes of research diaries<sup>16</sup>. These documents are later revisited and assessed if they were to be included in analysis, or simply used in aid of analysis.

## **ii. Methods**

Multiple modes of data collection were employed in this dissertation to maximize the amount of potential data extracts that may be analyzed. In the same manner, a pluralistic approach to data collection also enables a more holistic perspective and thick description of the organization as it is represented in three levels (i.e. the institution, the decision-makers, and the field personnel) (Langley & Abdallah, 2011). Note that each level required a particular type of data collection. Finally, employing multiple modes of data collection also allows for data triangulation, which can substantiate the analytical inferences made in this study.

The primary mode of data collection was done through in-depth interviews, but is also complemented by documents such as annual reports, situational reports, case reports, as well as accounts authored by some of the informants themselves. As mentioned in the previous section, the data collected *externally* (i.e. those that originate from informants through interviews and documents) are complemented by data produced *internally* through field notes, memos, and research diary entries that I personally authored based on my impressions and

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<sup>16</sup> In total, I have kept six volumes of research diary that pertains to the entire process of my PhD journey, only three of which are specifically related to the data collection.

interpretations from the field. Collectively, the body of data for this dissertation consists of externally and internally collected data from the following sources: in-depth interviews, field notes, reports, and personal accounts. A devoted research diary for the dissertation was also used to aid in the analysis of the data.

1. *In-depth interviews*. A total of 15 interviews were conducted for both cases at the levels of the decision-maker and field personnel. Interviews lasted between 45 and 90 minutes. Prior to each interview, the interviewees were briefed on the nature of the questions that will be asked, alongside the purpose of the dissertation, as well as consent and assurance of anonymity. All the interviewees were given a print copy of the consent form<sup>17</sup>. Further, the interviewees were recruited through a top-bottom endorsement (from institution to managers, from managers to field personnel). On that note, their participation to the study was officially regarded as organizational participation.

The flow of the questionnaire<sup>18</sup>, while largely open-ended and semi-structured, included specific questions that were uniformly asked of the interviewees. Such questions included demographic data such as gender, age, years of employment in any company and years of service with the company. It also included the salient points regarding the unfolding of the typhoon and their respective actions.

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<sup>17</sup> See APPENDIX B: ENDORSEMENT FORM on p. 371 and APPENDIX C: INTERVIEW CONSENT FORM (COPY) on p. 372

<sup>18</sup> See APPENDIX D: INTERVIEW GUIDE on p. 374

Five people were interviewed at the decision-making level (one per case observation). For *Case 1*, two to three people were interviewed at the level of the field personnel per case observation. Note that the small organizations employed about 40 people in their teams, but during the immediate response phase of the typhoon, only a maximum of 5 people could report to work.

Meanwhile, for *Case 2*, one person per case observation was interviewed. It was more difficult to access informants at the level of field personnel in larger organizations – oftentimes the people who were involved in the response operations during Typhoon Haiyan were not available or have been assigned to another site. At most, I was able to conduct one interview per case observation in *Case 2* at the level of field personnel. The two informants from *Case 2* at this level were supervisors or managers which were one or two steps away from the decision-making level, and were present and engaged in the response operations during the typhoon.

In most instances, one-on-one interviews are undertaken. However, there were two case observations (*Town Hospital and Energy District*) where I had to resort to group interview because of the limited availability of the staff. At the moment when I came in to interview, it happened they were all available at the same time. During those instances, I was cautious to ensure that I was giving equal attention to

the informants. One group (*Town Hospital*) consists of two informants at the same time, while another group (*Energy District*) consists of three informants at the same time. Table 6 provides a tally of the number of interviews conducted for each organization and each level of representation within the organization.

Interview Level/ Number of Informants	CASE 1			CASE 2	
	<i>Water District</i>	<i>Town Hospital</i>	<i>Energy District</i>	<i>HQ</i>	<i>Telco</i>
<i>Individual – Decision Maker</i>	1	1	1	1	1
<i>Individual – Field Personnel</i>	2	3	3	1	1
<i>TOTAL</i>	3	4	4	2	2
<i>TOTAL INTERVIEWS</i>	15				

**Table 6: Number of Interviews per Organization and per Level**

The interview questions were mostly open-ended, where narration and interpretation of the informants were emphasized. As the informants narrated their story, I used the variables and processes initially defined in the probing framework (see Figure 7)<sup>19</sup> to guide the discussion. I was also cautious to draw on both organizational and individual references that the informants provided. All the interviews were recorded in audio and were later transcribed in the natural languages they were spoken, i.e. English, Filipino, and Waray (the native dialect of the province of Leyte). Very few sentences were spoken in Waray by the informants, which were mostly limited to expressions. These were nevertheless translated to Filipino.

<sup>19</sup> See Chapter 3, Section D on 97

2. Field Notes. Consistent note-taking were undertaken during the interviews to capture as much as possible the data being provided by the informants (Arksey & Knight, 1999). The field notes reflect impressions in relation to the time and space in which the interviews were conducted, observations before, during, and after the interview (Arksey & Knight, 1999). In effect, each interview conducted had corresponding field notes. I also took note of the conversations and exchanges I have with various researchers and practitioners who are not necessarily a part of the organization, but provide valuable insights about the general nature of the organizations I am studying.
3. Reports. These are secondary documents provided by the organizations themselves or collated from public reports published online. Examples of secondary documents include situation reports during the typhoon, annual reports that provided details regarding the effects of Typhoon Haiyan to the organization, general assembly reports, and case study reports.
4. Personal Accounts. One of the informants at the decision-making level happened to have written a personal account of their experience as a General Manager during Typhoon Yolanda. This was self-published in limited copies and one was provided to me. In turn, this became a part of the body of data.

5. Research Diary. I had kept a diary throughout the process of this dissertation, and have since collected six volumes that contain notes and impressions on the development of research. Of the six volumes, three volumes are accumulated for the purpose of data collection and analysis. The contents of the diary are not necessarily used as data sources eligible for analysis, but as aid in the analysis of the data extracts. An inventory of the data corpus is presented in Table 7 below. All of the data were transcribed (as was the case in the interviews) and digitized, and subjected to coding using NVivo.

Document Type	Document Code	Description	Case Observation
Interview Transcripts	1.1.	Interview with Water Distributor – Decision-maker (DM)	Water District
	1.2.	Interview with District Hospital – DM	Town Hospital
	1.3.	Interview with Energy Distributor – DM	Energy District
	1.4.	Interview with Military – Field Personnel (FP) 1	HQ
	1.5.	Interview with Military – DM	HQ
	1.6.	Interview with Telecommunications – DM	Telco
	1.7.	Interview with Water Distributor – FP 1	Water District
	1.8.	Group Interview with Energy Distributor – FP 1,2, 3 (3 informants)	Energy District
	1.9.	Interview with Water Distributor – FP 2	Water District
	1.10.	Group Interview with District Hospital – FP 1, 2 (2 informants)	Town Hospital
	1.11.	Interview with District Hospital – FP 3	Town Hospital
	1.12.	Interview with Telco – FP 1	Telco
Field Notes	2.1.	Exploratory with Telecommunications – DM	Telco

Document Type	Document Code	Description	Case Observation
	2.2.	Meeting with Faculty Member in Sociology re Constructivism	Organizations in general
	2.3.	Interview notes: Water Distributor – DM	Water District
	2.4.	Interview notes: District Hospital - DM	Town Hospital
	2.5.	Exploratory meeting with Energy Distributor – DM	Energy District
	2.6.	Interview notes: Energy Distributor – DM	Energy District
	2.7.	Reflections from the field	Organizations in general
	2.8.	Feedback of reflections with Thesis Supervisor	Organizations in general
	2.9.	Interview notes: Military – FP 1	HQ
	2.10.	Interview notes: Telecommunications – FP 1	Telco
	2.11.	Exploratory meeting with Military – DM	HQ
	2.12.	Reflection from the field	N
	2.13.	Interview notes: Military – DM	HQ
	2.14.	Interview notes: Water Distributor – FP 1	Water District
	2.15.	Group Interview notes: Energy Distributor – FP 1, 2, 3 (3 informants)	Energy District
	2.16.	Interview notes: Water Distributor – FP 2	Water District
	2.17.	Group Interview notes: District Hospital – FP 1, 2 (2 informants)	Town Hospital
	2.18.	Reflections from the field	Organizations in general
	2.19.	Interview notes: District Hospital – FP 3	Town Hospital
	2.20.	Feedback notes and reflection on Public Presentation	Organizations in general
Official Reports	3.1.	Situation Report – Water Distributor	Water District
	3.2.	2014 Annual Report – Energy Distributor	Energy District
	3.3.	2014 General Assembly Report – Power Distributor	Energy District
	3.4.	2014 General Assembly Meeting Minutes – Energy Distributor	Energy District



Document Type	Document Code	Description	Case Observation
	3.5.	Case Study Report – Telecoms	Telco
Personal Account	3.6.	Self-published book of a DM	Energy District

**Table 7: Data Inventory**

Notes: DM – Decision-makers; FP- Field Personnel; N – all organizations

### ***iii. Researcher's Positionality and Reflexivity***

The strategy employed for the collection and analysis of data in this work is deeply rooted in an interpretivist tradition, with emphasis on the views and interpretations of the informants, which are argued to have resulted from their various interactions with the social context before, during, and after Typhoon Haiyan, as well as from the interaction of the informants with the researcher. While I entered the field mostly as an observant, I acknowledge that my position as a researcher asking the questions may have shaped the way that the informants provided their thoughts, impressions, and answers. For example, while I allow them to take the lead in narrating the sequence of actions undertaken during Typhoon Yolanda, the cues I used from the probing framework to draw emphasis on the core objectives of this dissertation may have, in one way or another, influenced the way that the informants make sense of the actions they undertook in retrospect. On a related note, I acknowledge that when questions regarding the individual narratives of the informants were asked, the informants are possibly undertaking an iterative process of meaning-making. Questions such as 'why did you do it?',

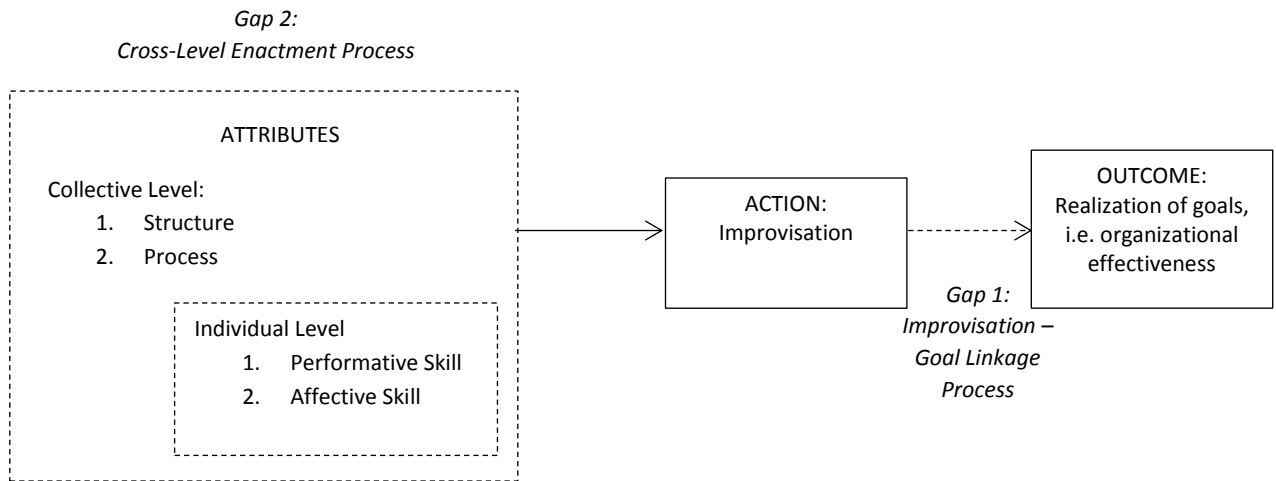
‘what encouraged you to do it?’ in relation to the actions that they undertook to cope with Typhoon Haiyan put them in a position of reflection about actions they otherwise had not had the opportunity to think about while they were undertaking it.

Note that my positionality as a researcher is actively ingrained in the notes that I have collated on the field and the volumes of research diaries I had produced over the course of this research. There were constant loops between data collection and data analysis based on the interpretations I am making, which ultimately, become embedded in the final inferences for this dissertation.

Finally, as I am also cautious about the importance of rigor, as well as the vulnerability of an interpretivist research to personal biases, I also consciously maintained some distance with the data. In this regard, I was helped by senior researchers from De La Salle University in the Philippines and the Disaster Research Center of the University of Delaware who have prior experience in disaster research, my primary and secondary supervisors, as well as my colleagues in La Salle Barcelona and the European Network of NITIM for the project cohort of which this dissertation is part. I have engaged these people either individually or through open fora regarding the data I collected and the interpretations I initially have.

## D. Probing Framework and Analytical Approach

This dissertation uses a probing framework to aid in the exploration and conceptualization of the process by which improvisation enables organizational effectiveness (see Figure 7).



**Figure 7: Probing Framework of the Dissertation**

*Note: Broken lines suggest that they are main subjects of inquiry of this dissertation*

Ultimately, the framework is a means of probing the likely answers to two identified gaps: (a) first, is the process by which the act of improvisation is related with organizational effectiveness, i.e. realizing goals, and (b) second, is the process by which attributes at two levels, i.e. individual and organization, interact with one another to bring about the act of improvisation to make organizations effective in disaster environments.

The constructs in the framework are grounded in the existing literature in OI as well as in organizational goals. Those depicted with broken lines suggest that they are the main subjects of inquiry of the dissertation.

The first process explored in this study is how improvisation forges a way to attain a very specific outcome, i.e. organizational effectiveness in disaster environments (see '*Gap 1: Goal-Improvisation Linkage Process*' in Figure 7). As discussed earlier, the literature already establishes that organizations employ improvisation as an action to cope with unanticipated disturbances or shocks in the environments. The literature also establishes that at best circumstances, improvisation can bring about beneficial outcomes for the organization. However, the process for which this transpires remains to be, as of yet, narrated and conceptualized. The framework thus infers on the likely connection between improvisation as an action, and organizational effectiveness as an outcome. The process that allows for such link to exist will be explored in the empirical part of this dissertation (see Part II).

The second process explored in this study peers into a cross-level analysis of how individual-level attributes and organizational-level attributes come into play in the enactment of improvisation (see '*Gap 2: Cross Level Enactment Process*' in Figure 7). In previous studies, collective level attributes are tackled separately from individual level attributes. In this dissertation, both levels are acknowledged equally.

On the one hand, the organization is acknowledged as the main representative of actions and outcomes. This means that all actions and outcomes are directed and

eventually culminate to the level of the organization. To this end, the organization has established attributes which its individual members orient themselves on.

On the other hand, the role of the individual as the source of action is also recognized. In this dissertation, it is inferred that individual members of the organization can bring with them specific attributes that can explain various organizing processes of improvisation that makes the organization purposefully effective. Note that the content attributes identified in the probing framework only include those that are commonly acknowledged by the studies considered in the literature review of this dissertation. This is not to suggest finality to the listed attributes. Instead, the framework capitalizes on the common attributes listed across all studies, e.g. structure and process at the collective level, and performative and affective skills at the individual level. These are used as starting points to further probe into other attributes that are likely to emerge from the collected data for this dissertation (see Part II).

Consequently, the approach to analysis follows a narrative approach to conceptualizing processes (Klag & Langley, 2013; Langley et al., 2013; Pentland, 1999). As articulated in the previous chapter, conceptualizing how improvisation is related to organizational goal underlies the exploration of two related processes: first, the process by which organizational improvisation forges a way to realize organizational goals; and second, how individual and organizational level attributes interact with one another in bringing forth organizational improvisation. Pentland (1999) points out that narrative approach can aid in process theorizing through the following components: (a) sequential events, (b) focal actors, (c) a narrative voice that can help surface the dynamics across

relationships between actors, (d) an identifiable frame of reference of what is expected and not expected, what is right or wrong, and (e) other indicators for time and context (Langley et al., 2013; Pentland, 1999).

The context used to surface the processes for this study has the components apt for a narrative approach:

- (a) The sequential events are recorded in episodes of before, during, and after the typhoon made landfall.
- (b) The focal actors are organizations whose organizing processes are made possible by a culmination of actions and attributes at two levels: the organization and the individual.
- (c) The narrative voice used in this study is that of an etic researcher who is retelling the stories of the individuals who have lived the experience of responding to the typhoon as part of their respective organizational duties.
- (d) The frame of reference for identifying what was 'by the books' or within routine organizational boundaries are the templates for action and previously established goals. Improvisation, by nature, departs from original action plans, and a way to tell whether actions are routine or improvisational depends on scripts and goals set prior to the onset of an extreme context.
- (e) Finally, other indicators for time and context include identification of attributes, feelings and expectations at certain points in time, among other things.

Together, these elements appear iteratively in the coding cycles of the data to put together the narratives of each case that were ultimately used to generate an analysis that helps explain the processes that this study seeks to explore. Note that in order to minimize personal bias in the data interpretation and the use of codes, the coding process was recurrently presented and subjected to recurrent comments and scrutiny in various scientific communities: foremost through the research seminars of the *GREITM*, and through various doctoral colloquia<sup>20</sup>.

There are particularly three coding cycles that reflect the levels of narrative structure to aid in process theorizing described by Pentland (1999):

- (a) The first cycle focuses on story building. The aim of this first cycle is to grasp the data through stories told from different levels of representation. In this cycle, the probing framework (see Figure 7) was used as an initial guiding framework to identify the initial elements of the story, including indicators for episodes (before typhoon, during typhoon, and after typhoon), the actors (organization vs individual), the actions undertaken (improvisation), and the attributes surfacing from each level. There was an initial list of six provisional codes based on the probing framework established for this dissertation. These included: (1) structure - collective, (2) process - collective, (3) performative skill – individual, (4) affective skill – individual, (5) improvisation, and (6) outcome – goal realization. As the coding process accumulated, the initial list had to be

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<sup>20</sup> See APPENDIX E: CODING PROCESS VETTING – SUMMARY OF FORMAL PRESENTATIONS TO SCIENTIFIC COMMUNITIES on p. 376

modified to reflect the findings from the body of data, which resulted in an expanded list of 21 codes. Some of the codes from the initial list were maintained (e.g. structure, process), some had to be merged (e.g. affective and performative skill as 'skill'), and some had to be expanded, (e.g. goal to 'operative goal' and 'official goal').

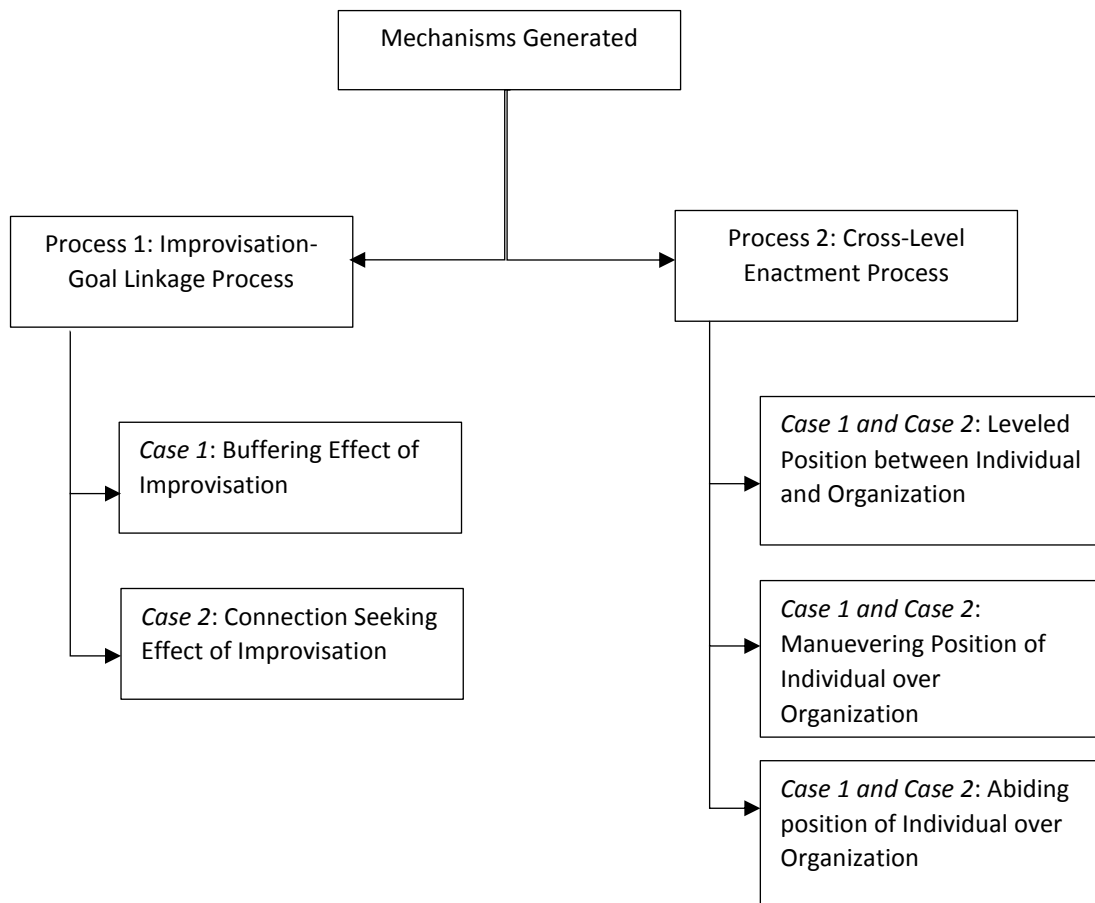
In addition, descriptive codes regarding preparations before the typhoon, elements of shock, dilemma with existing resource and process configurations also emerged from the data. Likewise, other codes that emerged in-vivo, e.g. learning and values, also became a part of the expanded list of first cycle codes.

(b) The second cycle coding focused on tightening the stories to create a representative fabula. Pentland (1999) describes fabula as a generic description of a particular set of events and their relationships (Pentland, 1999). In this cycle, common denominators across the case observations became central to surfacing a more generic narrative that represents two distinct cases, i.e. that of *Case 1* – the small organizations that were in the field prior to the typhoon, and that of *Case 2* – the large organizations that entered the field after the typhoon.

(c) The third cycle of coding focused on generating mechanisms, i.e. exposing the underlying structures that enable or constrain the fabula (Pentland, 1999). In this final cycle, two mechanisms emerged (see Figure 8): first, is the process by which improvisation is used to realize goals, and second, how the individual and organizational level attributes interact with one another in enabling



improvisation to realize organizational goals. The first mechanism shows distinct patterns that are unique to *Case 1* and *Case 2*, and therefore they are presented in the analysis as two context-dependent processes of improvising to realize goals. Meanwhile, the second mechanism shows more general patterns that are comparable across *Case 1* and *Case 2*, hence three narratives are used to explain the three processes in which individual and organizational level attributes interact with one another in an organizational response to disasters.



**Figure 8: Mechanisms generated from the coding cycles**

This approach to data analysis is implemented in the chapters that report on findings and analysis (see Part II).

## **E. Ethical Considerations**

Research undertaken within the context of disasters are complex and oftentimes sensitive (Rodriguez et al., 2007). Indeed, the informants were involved directly in the management of the disaster and may have been subjected to vulnerabilities in aspects that can either be material or immaterial. For this dissertation, ethical aspects were prioritized in order to ensure that the organizations and the informants are protected. Specific considerations were directed to consent, emotional vulnerability, and respect for the reputation of the organizations through anonymity.

First, all organizations were approached at the institutional level. Information about the dissertation, including the objectives, and the funding agency for the project, were fully disclosed to them. Given that the management of Typhoon Haiyan was controversial and has received public criticism, it was important to reiterate to the organizations that the dissertation is not intended to evaluate the performance of the organization, but rather to draw some theoretical insights regarding how it was managed. As soon as access was provided, informed consent were sought from the informants.

Second, in all case observations, the informants were directly involved in the typhoon. Some of them were connected to victims, or have suffered material losses which until the time that data was being collected, have not been resolved. There were also instances when the informants have not had the time to reflect about their state until the

time when the interviews were conducted. There have been times when narrating their experience exposed their emotional vulnerabilities. I had to be cautious as to not take advantage of their vulnerability in order to obtain more data. Likewise, I had to consciously regard my position as a researcher, and not as a person with a capacity to provide counselling in case they asked me for some help.

Third, all the organizations have a reputation to uphold, and it was crucial that I take this to full account while maintaining my academic freedom to inquire and report the findings of my work. As mentioned above, the management of Typhoon Haiyan has drawn some criticism from the public and the media. Some mismatch in expectations of the public and the demands of the incumbent government from the implementing organizations added to the tension in the already complex event. It was inevitable for the informants to disclose some of their concerns as a part of their narration. Not all of these concerns are necessarily a part of the dissertation, but were crucial to segue into more useful content. Sometimes, these stories have also been their way of '*airing out*' concerns that are otherwise barely paid attention to. To this end, all case observations are anonymized to the most extent possible. Likewise, all case observations were appraised of my position as a researcher that is independent from the organization. This establishes my limitation to provide solutions to their personal concerns, and to reinforce my role as an independent academic researcher.

## **F. Chapter Summary**

This chapter provided a discussion regarding the methodological details of the dissertation. In particular, the following points have been explained:

1. The design of this dissertation is shaped by three underpinning perspectives.

First, the dissertation is centered on understanding how processes come about, instead of looking at factors that likely account for variance in organizational outcomes. That is to say, this dissertation is not grounded on variability in outcomes but rather in the process by which certain outcomes are achieved. Second, this dissertation considers the organization in its constant process of organizing, and as capable of consciously intending its actions to achieve particular outcomes. Lastly, the context of interest in this dissertation are extreme environments, which are characterized, among others, by elements of shock, disturbance, and can likely overwhelm the capacity of organizations to respond accordingly.

2. This dissertation leans on an interpretivist epistemology, which emphasizes a process of understanding organizational actions and outcomes as a result of interaction with elements within the context that organizations operate in. Moreover, the findings of the dissertation are aimed at uncovering emerging narratives that can be generalized at the analytical level, and consequently inform the theorization of how improvisation brings about goal sustenance as a concrete organizational outcome.

3. This dissertation follows a case study strategy that is inspired by the approaches of Stake (1995), Merriam (1998), and Gioia (2004), all of which lend insights regarding theorizing a process based on case narratives. Cases are defined here as a group of organizations that exhibit particular characteristics, including: size, scope of service, and closeness to the field prior to the disaster. Consistent with the guiding perspectives of this dissertation that organizations are in constant process of organizing, and has the capability to intend actions, this dissertation treats organizations as an entity that is represented by members at three levels: the institution, the decision-makers, and the field personnel. More details with respect to the case study design are summarized below:

- a. The event used to explore improvisation in an extreme context is Typhoon Haiyan, which devastated some parts of the Philippines in 2013. Specifically, the geographical context used here is the province of Leyte, while the temporal context used includes the ‘four days of lull and the weeks that followed’ in the aftermath of Typhoon Haiyan.
- b. There are two cases in this dissertation: *Case 1* explores the experience of organizations that are small, have a local scope of service, and have been on the disaster field prior to the typhoon, while *Case 2* explores the experience of large organizations with a national scope of service, and only entered the field after the disaster.

- c. Within each case, there are case observations, comprising of organizations that are critical to the restoration of normal functions of a community after a disaster. *Case 1* has three case observations that include: *Water District*, *Town Hospital*, and *Energy District*. Meanwhile, *Case 2* has two case observations that include: *HQ* and *Telco*.
4. The data collection was undertaken over a period of 6 months in the Philippines in three phases after access was granted by the organizations. During T1, interviews were conducted with decision-makers. This was followed by T2, when certain documents produced and vetted at the institutional level were accessed. Finally, during T3, interviews with field personnel were conducted. Interviews were the main source of data, although this was complemented by multiple modes of data collection, including field notes, and other documents (e.g. reports and personal accounts) to allow data triangulation.
5. The data corpus collected for this dissertation was subjected to an iterative process of analytical coding. Three cycles of analysis were conducted with the aim of surfacing inferences from the two case narratives, which in turn could inform the way in which improvisation and goal sustenance is theorized.
6. Ethical issues were duly considered in the conduct of this research, with particular focus on informed consents, consideration for emotional vulnerability to the informants' personal experiences during the typhoon, and anonymity.

The following chapters implement the methodology that was just laid out here. Consequently, it presents in detail the findings from the collected data corpus, which in turn lays the foundational groundwork to analyze and theorize the main inquiry of this dissertation.

## PART II

*“This is going to take some time – there is a lot, a lot of things to say. Where do you want me to start?”*

*–Mary, one of the two doctors who kept Town Hospital operational for a week, with a daily average of 80 patients coming and going.*

Part I laid the theoretical and methodological underpinnings of this dissertation. As mentioned previously, there are two main cases presented in this dissertation. The first case (*Case 1*) speaks of the narratives of organizations that are small, local in scope, and were already fielded in the disaster area prior to Typhoon Haiyan. This case is analyzed based on the experience of three case observations – a local water distributor (*‘Water District’*), a rural hospital (*‘Town Hospital’*), and a local energy distributor (*‘Energy District’*). Meanwhile, the second case (*Case 2*) provides an account of organizations that are large, have national scope, and entered the disaster area after the typhoon. There are two case observations within *Case 2* – military representation (*‘HQ’*) and a national telecommunications company (*‘Telco’*).

The main objective of this part is to present the findings from the field work with view to addressing the main research inquiry of this dissertation. This part is thus divided into two chapters, each presenting the findings per case. Each chapter follows a uniform structure, where major points are discussed: (1) a case narrative, (2) dissecting the core aspects of the narrative, including how improvisation occurred, (3) identifying the level



and degree at which improvisation occurred, (4) unpacking the attributes of the organization and the individual that enabled improvisation, and (5) a chapter summary.

The case narrative highlights the preparations, expectations and elements of uncertainty among the case observations, as well as the shock and specific dilemma they had to come into terms with in the aftermath of the disaster. They also present certain turning points for the organizations, particularly during the ‘four days of lull and the weeks that followed’ as a temporal context defined in this work<sup>21</sup>. This will also include an account of actions that organizations undertook to uphold their organizational goals, and ultimately the prevailing outcomes for the organization.

The second point will then dissect some core aspects of the narratives, which are defined as a result of the iterative coding process of the data corpus. The following will be highlighted: goals, reaction and response at various levels of the institution, the decision-makers, and the field personnel, how certain actions, including improvisation, are carried through to realize the goals, the enabling factors for improvisation at the organizational and the individual domain, as well as the precedents to improvisation.

Finally, the fourth section will provide a summary of this chapter and transition to the proceeding chapter on analysis.

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<sup>21</sup> See ‘Context: Four Days of Lull Post-Typhoon Haiyan and the Weeks that Followed in Leyte, Philippines’ on page 67

## 4. CASE 1: SMALL ORGANIZATIONS AND THE TYPHOON THAT 'WIPE OUT' THEM

### A. Narrative from the Field: 'We were really wiped out...'

#### *Phase 1: 'We were really prepared.'*

A few days before the Typhoon, warnings for a developing category 5 super typhoon were massively broadcasted. On Thursday, 7<sup>th</sup> of November, a day prior to forecasted landfall of the typhoon, the sky was clear and the sun was bright. At this point, all critical organizations were undertaking routine preparations for the typhoon. Among these organizations include the following: *Water District*, *Town Hospital*, and *Energy District*. The preparations they undertook included fortification of structures and infrastructure, designation of roles among organizational members, briefing for likely contingencies in processes, and where applicable, advisory of the clientele regarding preparations they need to do from their end.

*Water District* was concerned about making sure that the provision of water continues to be uninterrupted despite the typhoon, and their preparations gravitated towards fulfilling that concern:

*"Actually, before Yolanda, we have devised a communication system wherein we have already predicted that if there will be no available communication, what would we do. So it returns back to the ancient time wherein each individual has his own station. So whatever happens there, you have to run to the next station in order to inform, and then another one does the same. [...] We prepared a lot on our side, so we even distributed to my employees a very specific task on what to do. [...] [We also gave] advisory – collect reserve water." – Roger, General Manager of Water District*

*“On Thursday of course we were briefed by GM on what we were supposed to do. Then we stayed here [in the office] already because we already had people outside monitoring how strong the water was in the river. Because, of course, around the area of the bridge, we have lines there. We had some crew monitoring there. So we were working in pairs, at the basin, at the dam... in pairs.” – Francis, field officer in Water District*

Meanwhile, *Town Hospital* was concerned about making sure that they had all necessary supplies and human resource to keep their existing patients safe, and to be able to provide medical relief for likely injuries during the typhoon.

*“Now since there was already an advisory: one, we have to keep our vital equipment. So meaning to say, we have to wrap it in plastic, put it against the wall of the room so that it would not be soaked in water. [...] Next is food, because we have to feed ourselves and our patients. And most important, medicines and supplies. Aside from that, we have to have water supply and electricity. Now, so we have to put diesel in our generator and put water in containers. [...] Aside from the equipment, we have to manage the human resources – meaning to say, those who would go on duty, be prepared to extend their duty up to 18-24 hours because people who are coming here to go on duty might not be able to come.” – Mary, Chief of Town Hospital*

Finally, *Energy District* acknowledges that it was a backbone for successful operations of other disaster critical organizations. To this end, their primary concern was to make sure that power across the municipalities in its coverage area remains uninterrupted despite the typhoon. Otherwise, they had to make sure that power is restored as soon as possible.

*“When I got here, Thursday morning, I called all the employees. I told them that I was not experienced in typhoons, so mine are more on assumptions – ‘this is what can happen’. [...] The first thing I was looking at was where the typhoon will hit. First, the headquarters must be saved because if we initiate commands, there must be a command center.” – Larry, General Manager of Energy District*

Despite the ongoing preparations, there were also some uncertainties around the meaning of ‘*super typhoon*’. Leyte is experienced with inclement weather, as many of those interviewed attested that typhoons are not new to them anymore. In fact, government policies are already put in place to ensure regularity and availability of services among selected critical organizations during emergency situations such as a typhoon. *Mary*, the chief of *Town Hospital*, emphasizes this:

*“Since we are in a typhoon prone area, there is a standing order [from the government] that in all calamities, the Chief of Hospital should be in their posts. Meaning to say, ‘in the hospital’ before, during, and after the disaster. So twenty-four hours before, we make preparations. We have to be here to manage during, and especially after because of the destruction. So all of us, the chiefs of hospital, and the personnel are aware that when it’s code red – we have to be here.”*

There also seemed to be a regularity in the duties and operations prior to the typhoon, and a low sense of panic. People went about their assignments as they normally would prior to a typhoon. Many of the field personnel across the three organizations echoed the same sentiment that they were used to typhoons, and did not expect it to be ‘*that bad*’ because the weather the day before was sunny and ‘*looks just like any other day*’.

### ***Phase 2: Then, the typhoon came...***

The winds started howling at 3 in the morning on 8 November 2013. Strong gales and rain did not let up until about noon of the same day. Majority expressed fear and shock on the extent of damage.

*“So it was that strong! I thought oh god, oh god! Because it was like ‘bang! Bang!’ (mimicking the sound of loud thuds). There were already*

*many breakages, the glass windows. I was here. I thought, oh god, oh god why is it this strong?” – Luz, resident doctor at Town Hospital*

*“I am now 60 years old and for the last sixty years, I have not experienced such kind of typhoon. I really prepared. I thought that after a day, everything will be okay because that is the usual thing. [...] But Yolanda devastated us.” – Mary (Town Hospital)*

*“You really would not expect the typhoon because the weather was nice! It was hot. We were laughing while we were working because why would they say there is going to be a typhoon? The weather was really nice!” – Glen, field personnel from Energy District*

*“Our preparation was not enough. It was really like the earth swallowed us.” – Roger (Water District)*

All three organizations were overcome by shock in the aftermath of the typhoon. They started to make sense of the damages they incurred, some immediate setbacks, existing challenges, and in what direction they will lead on from there. The key challenges that they faced include scarcity of material resources, lack of available personnel who were in charge of specific roles in the organization, and finally, processes and related action templates that were no longer applicable to the current scenario.

The challenge on resources was that they are placed in the same location as the event took place, and the existing infrastructure was not resilient enough to protect their resources. For example, 90 percent of the utility poles of *Energy District* had been flattened, and the boom trucks they normally use had been damaged.

*“We ran out of materials needed for the power restoration. We only have two boom trucks. One is already junked and the other is ready for scrap auction.” – from the personal account of Larry (Energy District)*

*“The next day, the linemen started walking to go here [to the head office]. But of course they made sure first that their families and houses are safe. And then slowly, we started spreading out to check the substations. We sat down and had small round of opinions. We asked ourselves, how many years do we need to put this all back?” – Arcie, field personnel (Energy District)*

Meanwhile, 60 percent of the roof had been blown off in *Town Hospital*.

*“Supplies were running out [on the fifth day]. Sterile gloves running out, sutures and fluids running out. We were hopeless. We were all very tired. There were plenty of patients. [...] I asked the mayor for help. I said, we cannot go on anymore because we are so tired and we are running out of supply.” – Mary (Town Hospital)*

It had also been the case wherein the stocked resources were not sufficient for the entire duration that the organizations were on their own and no external help has reached the town yet. For example, *Water District* ran out of chemical supplies needed to treat the water and *Town Hospital* was starting to run out of medicines and related medical supplies on the third day after the typhoon.

*“Most challenging of all the activities that we had at that time was to maintain the water to our concessionaires here. Unfortunately, at that time, it only lasted for a week or two because all the debris from the leaves and the grasses within the perimeter basin went to the settling basin in itself. In other words, there was contamination because the leaves started to rot. [...] Now another thing is the scarcity of the chemicals that we need in treating the water. We cannot have so much warehousing of the chlorine. We have to desilt the upstreams of the dam by itself because it was already full of gravel and sand and silt, and even trees. It was the most challenging.” – Roger, General Manager (Water District)*

The organizations were also confronted with shortage of personnel who were in charge of very specific tasks, especially because the organizational members were first and foremost victims of the typhoon. While none of the organizations suffered loss of

life, their organizational members had to simultaneously concern themselves with the damages in their own homes and the trauma in their own families. For example, *Water District* only had the skeletal team that stayed overnight in the office before the typhoon, while *Town Hospital* only had a turnout of two doctors despite the originally planned six doctors prior to the typhoon. When it came to the point where personnel with specialized tasks were not around, other members of the organization were confronted with the necessity to assume the roles:

*“My general role is to receive complaints at the front desk. My role during Yolanda time, we were like stationary here. We would receive information from the outside that we had to log, for example if there were leakages, we would receive, log, and then forward the messages [to the responsible group]. [...] But during Yolanda, we were the only ones here [in the office]. Our focus was more on recording. We were really designated here. But one of our lines were broken, so the four of us here went there to repair. Also because I had a motor cycle, so I was one of the people who serviced. Then I helped fix the line. I brought with me a ‘landok’<sup>22</sup> – that is what is called here. Something for digging.” – Eli, field personnel (Water District)*

*“I went to our dietician. I told our Chief of Hospital, ‘can I go to the house of the dietician. [...] We went to Tacloban, we went to their subdivision. She was not there. She fled Leyte before the typhoon. So I came back [to the hospital]. ‘Doctor, she is not there anymore. Since Yolanda.’ Naku, patay ako!’<sup>23</sup> [oh no, I’m dead!] I will always be the one to attend to the patients who will arrive. I have to do it, even without the dietician. What will the patients eat? What will they eat? Important, number one, food of the patients, and doctors on duty. Food is important for the patients, 3 times a day. If I don’t cook, what will happen? Medicine? But medicine is only 20 percent. Food is 80 percent!” – Anna, field personnel (Town Hospital)*

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<sup>22</sup> *Landok* is a Waray term that means a hand tool used for digging. Based on the description of the informant, the tool is likeable to a digging bar.

<sup>23</sup> *“Naku, patay ako!”* is a common Filipino phrase to denote shock and worry. It loosely translates to ‘oh no, I’m dead!’

The organizations also found themselves dealing with processes and action templates that were incompatible with the present situation. These incompatibilities were also often a result of the scarcity of resources and unavailability of key personnel. At the decision-making level, the heads of each organization faced certain challenges in terms of upholding the existing process and action templates. For example, *Roger (decision-maker, Water District)* and *Larry (decision-maker, Energy District)* were both dealing with scarce resources and shortage of personnel, while acknowledging the need to ensure that their organizations continuously function. They recognized the waning motivation of their personnel to show up to work, and their concerns of not having money to fix the damages in their respective homes. The most straightforward response they were considering was to advance the salaries of the employees, as well as shell out the cash necessary to procure the materials that they needed. They were constrained by existing procurement processes that were mandated by law, and fast-tracking the process was not an option because of the unavailability of communication channels.

*“How would you operate the water district without money? On logistics alone, we were lacking. Why? Our employees live by their salary through the water district. I cannot just call, you know, their attention and compel them to work without any salary for them so they can take care of their families. [...] Tacloban was shut off. No bank transactions [...] our money, office money, is in Tacloban because the banks are there.” – Roger, decision-maker (Water District)*

*“Monday after Typhoon Yolanda, my treasury head told me that we only have P500,000 cash in the vault. It was November 11, 2013, four days from payroll date. The total payroll amount is more than P1 million. We cannot withdraw from the bank because our depository bank was devastated also. Should I tell my employees that we are running out of money for their salary? What about the*



*necessary expenses? Where will we get the amount?” – Larry, decision-maker (Energy District)*

*Mary from the Town Hospital* recognized that they would soon be needing external help as the patients kept coming. When foreign medical practitioners came, *Mary* could have immediately engaged them, however, she was mindful of the approval process for engaging medical practitioners which were also mandated by law.

*“We were only two doctors – the ROD<sup>24</sup> and myself. And then one doctor came but after staying here, she had an asthmatic attack so she had to go home. So two of us only. At 5 o’clock, the resident physician on duty on the day is already very tired and is coughing. [...] On the 8<sup>th</sup>, because the typhoon happened in the morning<sup>25</sup>, so I was the only [doctor] in the hospital. I was the resident physician on duty, I was the chief of hospital, so two-in-one. I think I sutured wounds until 12 midnight and then I delivered four babies. Because the ORD complex<sup>26</sup> roof was blown off, we have to roll the delivery table to the recovery room and we made the recovery room our delivery room. And it was ankle deep in water. [...]*

*On Wednesday<sup>27</sup>, we were already hopeless. By Friday, [a foreign team] arrived – the ex-marine doctors and then said, ‘Oh doctor, what do you need?’ I said ‘medical personnel and supplies.’ I think they were the ones that came with complete medical personnel and supplies. The personnel composed of doctors, nurses, and all fields – surgeons, ob-gyne.*

*[But] the government would not allow any foreign practitioners that are not cleared by the Department of Health.” – Mary, decision-maker (Town Hospital)*

*There were only 2 nurses, 1 nurse aid, and 1 janitor who had reported to work for a week while they were treating an approximate number of 80-100 patients on a daily basis. – Notes from the field (Field Notes 2.4)*

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<sup>24</sup> ROD is the short form for ‘resident physician on duty’.

<sup>25</sup> And the ROD was going to take a break because she had previously been on duty two nights before.

<sup>26</sup> ORD Complex is the ‘operating room for delivery’

<sup>27</sup> Five days after the typhoon (13 November 2013)

Table 8 provides notes from the field regarding the challenges that the organizations faced, and the respective dilemmas individual organizational members felt confronted with as a consequence of the challenges.

Challenge	Example per Case Observation	Dilemma
Resource	<u>Water District</u> Immediate Challenges/: <ul style="list-style-type: none"> <li>- One broken pipe and dam was contaminated, there was a need for chemicals</li> </ul>	<i>"Where do I get those chemicals? Everything was expensive. There was no transportation. Banks were offline." – Roger, decision-maker</i>
	<u>Energy District</u> Immediate Challenge/s: <ul style="list-style-type: none"> <li>- 90 percent of utility poles across nine municipalities were flattened</li> </ul>	<i>"None of the existing vehicles we used would work to re-erect the utility poles, yet we could not abandon the work because we had a mandate to re-energize the municipalities in x number of days. It was a marching order from the President." – Arcie, field personnel</i>
Role	<u>Water District</u> Immediate Challenge/s: <ul style="list-style-type: none"> <li>- Broken pipe was reported by a concerned citizen a few days later, and there was a scarcity of engineers. Field personnel on duty need to help even though they were designated for another task</li> </ul>	<i>"I am not an engineer. I am an administrative assistant. But they needed help to fix the broken pipe. What can I do?" – Eli, field personnel</i>
	<u>Town Hospital</u> Immediate Challenge/s: <ul style="list-style-type: none"> <li>- Need to compensate for the absence of other personnel with very specific task, e.g. dietician</li> </ul>	<i>"How do I know what to cook? I always need a list from the dietician. I don't know anything about nutrition. I am only a cook!" – Anna, field personnel</i>
Process	<u>Water District</u> Immediate Challenge/s: <ul style="list-style-type: none"> <li>- Banks were offline to make transfer and there were strict procurement processes to be followed as mandated by law</li> </ul>	<i>"Should I tap my personal resources to advance the salary of the employees even though this was not vetted by the Commission on Audit?" – Roger, decision-maker</i>  <i>"Can I make the purchase of material in advance due to 'emergency' even though this was not vetted by the Commission on Audit?" – Roger, decision-maker</i>

Challenge	Example per Case Observation	Dilemma
	<u><i>Town Hospital</i></u> Immediate Challenge/s: <ul style="list-style-type: none"> <li>- Increased tempo of operations despite scarcity of human resource and medical supplies</li> <li>- Approximately 80-100 patients were coming in and out of the hospital that normally services 40-50</li> </ul>	<i>"There was too much blood. On the fifth day, I was so tired. There were 2 doctors, including myself as the chief of the hospital, that were attending to an average of 80-100 patients. Then these foreign medical practitioners came complete with medicine and materials. Do I let them in? But what about the law? I could be held accountable." – Mary, decision-maker</i>
	<u><i>Energy District</i></u> Immediate Challenge/s: <ul style="list-style-type: none"> <li>- Employees were despirited</li> <li>- Need to source cash to advance the salary and immediate needs of the employees to motivate them to come to work</li> <li>- Need to reconsider the process of efficiently re-erecting the utility poles despite scarcity of resources</li> </ul>	<i>"I need to turn this office around, provide a safe space for my employees, and motivate them to find purpose in their work again. I need materials, I need to create a system and convert this space into an office. But where do I get the cash? Can I just buy without the approval of the Commission on Audit? Can I advance the salary of my employees without going through the normal channels?" – Larry, decision-maker</i>

**Table 8: Case Observations – Immediate Challenges and Dilemmas (from Field Notes and Interviews)**

### ***Phase 3: Deciding to stay in action and making 'magic' happen***

All case observations suffered immediate setbacks that threatened their ability to uphold their pre-established goals. Prior to the typhoon, all three case observations aimed to ensure continuous operations despite the super typhoon. Embodied in their organizational vision, which is considered in this context as a manifestation of official goal, is to ensure continuous services to their respective constituents in emergency situations. However, as the magnitude of the damage was unforeseen, the organizations found themselves prioritizing immediate operative goals to ensure that

the services are continuous, or in instances where there are disturbances to the operations, they had to ensure quick resumption of services.

These setbacks triggered various responses from the organizational members. However, the individual stories and related reports in the data corpus echoed an overall frame of mind to ensure continuity of service in spite of the setbacks. This frame of mind of preserving the organizational target of continuous operations of service were rooted in various things at the individual domain, e.g. *'the natural desire to help'*, *'need to do something'*, or at the collective domain, e.g. *'due to policy'*, *'due to mandate'*, *'this was our job'*. Naturally, the dilemmas they were faced with prompted some adjustments, and ensuring the continuity of service triggered the organizational members to resort to various actions. Whether at the level of the decision-maker or the level of the field personnel, they spoke of going out of their comfort zones, just doing it, getting to business, likening the situation to *play*, and doing what they could as the days went.

*"It was like rebuilding our lives and starting all over again, you know. We were children again. Our eyes opened, and there it is, a new world. It was like leaving our old lives behind. That was our experience."* – Arcie, field personnel (Energy District)

In the end, the dilemmas that each organization faced were addressed. The broken pipe in *Water District* was fixed and the water was treated. *Roger* was able to source money to advance the salary of his employees and procure all necessary materials for the immediate recovery of the water district. Meanwhile, *Town Hospital* found itself afloat on the day they were *'hopeless'* – the patients were fed and treated, medical

supplies came in abundance, the two doctors who were rotating between themselves over the last five days since the typhoon finally engaged the foreign team of ex-marine medical personnel. As for *Energy District*, Larry was able to source the amount needed for the salary of employees, the cooperative. Moreover, through the Spartan effort of linemen like *Arcie*, *Energy District* was able to re-energize their coverage areas within 40 days on the first phase of the restoration. The physical task of re-erecting the poles without a boom truck for the first couple of days until external help came were accomplished.

Two years after the typhoon, on my field visit, all three organizations were running the course of their business seamlessly and regularly. There was electricity all over the coverage areas, faucets abounded in water, and patients come and go in the now restored hospital. They have spoken of some frustrations about how some issues from the typhoon were not yet closed, such as the government relief they were entitled to but never received, how some parts of their offices as a result of the typhoon still needed fixing, and how admittedly, despite the typhoon, there was still a need for massive investment on preparations for super typhoons such as Haiyan. But here and there, were signs of progress. *Water District* managed to institutionalize a revised disaster contingency plan, which incorporates their learnings from Typhoon Haiyan. *Town Hospital* has restored the damaged parts of the hospital and patients come about, and the headquarters of *Energy District*, while in the process of being renovated, had full attendance of the employees. In one of the empty lots within *Energy District's* headquarters, I spotted some broken meters arranged accordingly. Larry then asked

me to climb the base of what seemed to be a dummy transmission tower. When I looked down from where I was, they used the broken meters collected from Typhoon Haiyan to form a decorative pattern. *'It's a reminder for us. We make do with what we have,' Larry said.*

I had meant to inquire deeper and in more concrete details how one action led to another, and how ultimately, these actions culminated to realizing the goals they had set prior. How did they get from a point of devastation to moving forward and keeping their respective organizations in tact? In one of the conversations I had with *Arcie*, field personnel from *Energy District* who led the re-erection of 40-footer concrete utility poles without a boom truck, I opened with, 'so tell me, how did you do it?'

With a smile, he said 'magic.'

They have since called him the 'magic man'. It was time I understood how the magic happened.

## **B. Dissecting the 'magic'**

When *Arcie* talked about 'magic', he talked about various considerations he had while undertaking the action. Expectedly, the considerations of the field personnel, as many other informants who shared their version of 'magic' in response to the typhoon, pointed at the following: (a) the goals they were considering as a pre-text to the action, (b) the immediate responses and reactions from all levels of the organization, i.e. institution, decision-maker, and field personnel, after the typhoon (c) significant actions that were conceived and executed at the same time to help the organization make it

through their goals, and ultimately, (d) the factors that enabled them to do undertake such actions. Each of these points are discussed in the following sections.

***i. Goals: What the 'Magic' was for***

As narrated above, all organizations were functioning around specific goals, which may or may have not pervaded the organization even before the typhoon. This was demonstrated in the data corpus, which in turn allowed for an approximation of what the operative and official goals of the organization were.

As discussed in Chapter 2, goals in general represent organizational intent. Understanding why organizations behave the way they do can stem from an understanding of the goals that they pursue. In this case, the goals of the three organizations frame the actions they undertook, i.e. the very reason they did 'magic' was because of specific goals that bounded their actions. In other words, 'magic' happened because there were very specific goals they aspired to realize. Table 9 summarizes the official goals that define the day-to-day operations of the organization. These goals are reflected in their respective mission-vision statements, in their institutional reports, as well as articulated across the organization.

<b>Case Observation</b>	<b>Official Goal</b>
<i>Water district</i>	To ensure that concessionaires are provided with clean water
<i>Town Hospital</i>	To provide quality health care to constituents of the district
<i>Energy district</i>	To provide 'holistic development in the countryside through total electrification and efficient delivery of power at justifiable rates'

**Table 9: Official Goals of Case Observations – based on secondary documents and field notes**

Complementary to the official goals are more specific ones that define the operational targets of the organization, which using Perrow's (1969) term, can be considered the *operative goals*. There are plentiful of these, and among the organizations observed for this case, it was apparent that there are operative goals that are particular to disaster situations. Such operative goals were manifested in pre-existing mandates that were given in the context of the organization's previous experience with calamities, through business emergency plans, or through new mandates that were given after the typhoon. Most of these goals, as shown in Table 10, support the overall official goals.

<b>Case Observation</b>	<b>Operative Goals prior to the Typhoon</b>	<b>Operative Goals Post-Typhoon</b>
<i>Water district</i>	<ul style="list-style-type: none"> <li>▪ To devise a communication system that can withstand the failure of networks so that reports on system damages are seamless</li> <li>▪ To designate specific tasks to each employee in line with ensuring continuous operations of the water district despite the</li> </ul>	<ul style="list-style-type: none"> <li>▪ To attend to the broken pipe as soon as possible</li> <li>▪ To sanitize the dam and ensure clean water provision</li> <li>▪ To normalize the workforce turnout in the immediate aftermath of the typhoon</li> <li>▪ To be able to provide employee salaries and</li> </ul>



Case Observation	Operative Goals prior to the Typhoon	Operative Goals Post-Typhoon
	<p>typhoon (some roles include: procurement, infrastructure, office administration)</p> <ul style="list-style-type: none"> <li>Where there is a disturbance, to ensure prompt resumption of service</li> </ul>	<p>procure equipment urgently needed for resumption of water services</p>
<i>Town Hospital</i>	<ul style="list-style-type: none"> <li>To ensure that the Chief of Hospital is on duty before, during, and after a perceived calamity</li> <li>To ensure vital equipment are stored in safety</li> <li>To ensure steady medical supply, as well as basic patient care provision for food and drinks</li> <li>To ensure human resource availability to attend to the patients</li> </ul>	<ul style="list-style-type: none"> <li>To provide undisturbed medical relief to victims of the typhoon</li> <li>To relocate the patients in certain wards to safe areas where structure was intact</li> <li>To feed the patients</li> </ul>
<i>Energy District</i>	<ul style="list-style-type: none"> <li>To secure the headquarters</li> <li>To safeguard equipment of the cooperative</li> <li>To properly account for the inventory of materials at the warehouse</li> <li>To ensure safety of the employees</li> <li>To ensure skeletal work force in the office</li> </ul>	<ul style="list-style-type: none"> <li>To clear the roads</li> <li>To re-energize the core institutions of coverage areas within 40 days</li> <li>To ensure workforce turnout in the immediate aftermath of the typhoon</li> <li>To be able to provide employee salaries and procure equipment urgently needed for resumption of water services</li> </ul>

**Table 10: Operative Goals of Case Observations – based on field notes, interviews, and secondary documents**

Indeed, these operative goals all gravitate to the realization of each organization's avowed official goals. As may be seen however, the operative goals were more susceptible to adjustments depending on temporal and contextual

conditions of the calamity. Prior to the super typhoon, the operative goals were set according to expected scenarios of the super typhoon. When it dawned on the organizations that the super typhoon turned out to be bigger than what they had expected, i.e. when an element of shock was introduced, the operative goals were quickly reconsidered and readjusted to ensure that the official goals were nevertheless realized. Indeed, the element of shock came in the form of the magnitude of the damages done to the organizations:

*“But when the typhoon happened, we could not deploy the people as planned. Because, our initial expectation was that the main road would still be passable [after the typhoon]. At 4 o’clock, the typhoon subsided. I looked out, and there were fallen trees and logs all over. When I left the house and got to the main road, you could not pass anymore.” – Larry, decision-maker (Energy District)*

*“Our strategy and preparations were not applicable anymore. We could not use it. We really did not expect such a thing to happen.” – Roger, decision-maker (Water District)*

*“We had to adjust our goal and our strategy.” – Larry (Energy District)*

All three organizations echoed the need to adjust their actions in order to account for the new situation. Indeed, some of them emphasized a change in what they generically termed as ‘goal’. When asked to expound on it, they gave very concrete examples of operative goals, as reflected in Table 10:

1. Water District initially aimed to ensure that all the delegated tasks to the employees will be played out according to plan, however, because of the breakdown of network availability for communication (cellular-enabled communication did not work), and because of the impassable

roads, the designated employees were unable to attend to their respective tasks and they had to rely on somebody else to assume the role. Just the same, the current resource stock for the cleaning of the dam was not enough. The adjustments they had to make was to normalize the workforce turnout, to clear the roads, to immediately attend to the broken pipe, and to promptly sanitize/decontaminate the water dam.

2. The operative goal of Town Hospital was to safeguard their medical equipment, ensure steady supply of medicine and food, and also ensure that there are enough doctors to look after the anticipated surge of victims. However, the hospital suffered structural damages, and the hospital crew was very lean for the amount of patients that were coming in and out: there were only two nurses, one nurse aid, one janitor who reported to work for a week, and two resident doctors that were treating an approximate number of 80 to 100 patients on a daily basis. They had to adjust certain processes to get the necessary supplies, feed the patients, and seek reinforcement to the human resource complement.
3. Finally, Energy District prior to the typhoon was aiming to secure the headquarters, to safeguard the equipment of the cooperative, to properly account for the inventory of materials at the warehouse, to ensure safety of the employees, as well as ensure skeletal work force in

the office. Despite these goals, what was not foreseen was the flattening of 90 percent of their assets. They instead had to add to their existing priorities, and re-energize their area of coverage within a specific timeframe.

Consistent with the conceptualization of goals in Chapter 2, the operative goals acted as a buffer to the upholding of the official goals. The official goals remained unchanged, and instead framed the adjustments made in operative goals.

*The core considerations of the organizations in the adjustments they had to make were rooted in whether they were actually representing the universal goal of the organization. These were emphasized in the common sentiment they displayed when I asked them why they did what they did: 'we have to provide water, the community cannot function without water,' 'our goal is to provide lights in the home,' 'that is our job – our job is to help. That is why we are here. Nothing can go wrong because our aim was to help'. All their answers are oriented towards the larger purpose of the organization, which are embodied, in some ways, to their official goals. – Author's Field Notes (2.18)*

Indeed, the operative goals became the guiding script for the organizations to realize their official goals. Consequently, the actions undertaken in response to the situation were directed to making organizations effective.

## **ii. *The Resolve to Stay in Action***

After making sense of the adjustments that need to be undertaken in relation to the operative goals of each organization, there would have only been two alternative courses of action that they could take: '*to wait and see*' or '*to stay in action*'.

As the narrative implied, the organizations resolved to stay in action. There was an overall frame of mind to ensure continuity of service and consequently stay true to the realization of their avowed goals. This, however, did not go unchallenged. Indeed, the organizations had come into terms with various challenges that either stem from the lack of resources, or from procedural complications that counter the need for efficient and prompt action in the immediate aftermath of the super typhoon. The vignette, for example, points out various dilemmas that each organization faced:

1. For Water District, the adjusted operative goals included attending to the broken pipe as soon as possible, sanitizing the dam, normalizing the workforce turnout as well as sourcing enough cash flow to release employment salaries and procure equipment that are urgently needed to resume the water services. As far as these operative goals go, some specific dilemmas presented themselves at both the level of the decision-maker and the field personnel.

From the side of *Roger (decision-maker, Water District)*, how does one normalize the work flow if there is no cash to dispense for the release of the salaries of the employees, as well as to provide the immediate relief needed? The cash was also important to source the sanitizing chemicals needed to decontaminate the water dam. The institutional bank was based in Tacloban, which suffered much more than their municipality, and the banks were offline. There was an opportunity to

tap the decision-maker's personal funds but the clearance procedure for this kind of set up had to be vetted by the Commission on Audit. The approval process was not attuned to the urgency of the situation and the need to normalize the operations of the organization, but if the decision-maker went by this route, he ran the risk of losing his personal funds. Indeed, *Roger* mused:

“How would you operate the water district without money?”

Meanwhile, from the side of the field personnel, *Eli*, one of the employees that was a part of the skeletal force at the office was delegated solely for the task of monitoring, logging, and reporting complaints of water disturbances. While at the headquarters, he received a complaint from a private citizen who mentioned that one of the pipes might have been damaged. As the super typhoon resulted in the breakdown of the communication line and also in the lean work force availability, there were a few engineers on site, and they would be needing additional manpower to assess and fix the damage. The job would entail physical work including digging and assessing. *Eli (field personnel, Water District)* at that time was a new member of the organization and has not had prior experience in fixing broken water pipes for a water district before. Moreover, he was tasked for a job that was very specific. Alas, the engineers needed the help, and he was around. He mused,

*“If for example I do something on behalf of our office, particularly in our organization here in the water district, I would still like... I mean because there are still things that I might not have seen, that I want a supervisor to oversee me, someone to point out to me [what to do], and from there, I can slowly increase my level of learning, you know?” – Eli, field personnel (Water District)*

During the time when his help would have been instrumental in helping increase the lean manpower to fix the broken pipe, the context did not immediately afford him the possibility to get the validation he needed to proceed with the job.

2. For Town Hospital, the adjusted goal was to keep the hospital fully functional despite the lean workforce, to relocate the patients in safe wards where the structure was intact, and to feed the patients. For *Mary*, the decision-maker, the greatest setback was the lean workforce that showed up in the immediate aftermath of the super typhoon. As Chief of Hospital, *Mary* was also rotating duties with the Resident Doctor and this went on for almost a week, and it was starting to wear them out.

*“It was just the two of us - Saturday, Sunday, Monday... So we just go on every other day duty. When you do every other day duty, you do the outpatient, you do all the emergencies here. So we were really very tired. There were plenty of patients.” – Mary, decision-maker (Town Hospital)*

*“We were so tired. We felt sapped. We were so tired.” – Mary (Town Hospital)*

She narrates that on a Friday – about a week after the super typhoon happened, a team of foreign doctors came and they had complete medical supplies and personnel. This would have been ideal for the

lean team in the hospital, the arrival would have kept them ‘afloat’. However, *Mary* was also aware of existing policies at the institutional level regarding the engagement of foreign doctors during emergency situations.

*“On a Friday, Team Emerald<sup>28</sup> came. [...] Our government would not allow any foreign practitioners not cleared by the Department of Health.” – Mary, decision-maker (Town Hospital)*

During that time, the urgency of the situation pressed the doctors to keep moving, and there was no time to go over bureaucratic procedures. Logistically, the clearance would have to come from Manila<sup>29</sup>, which at the time of the super typhoon, would have meant double-backing. The tempo of their work was constantly increasing and *Mary* had to quickly consider a way to engage the foreign doctors with due consideration of the policy. On the one hand, *Mary* acknowledges that the policy is provided in good faith and for the legal protection of the constituents in case something happens. On the other hand, the doctors and other medical personnel were slowly tiring themselves out.

*“This is the only hospital between Ormoc and Tacloban, this is the only hospital – so we can never just give up and say, ‘oh we are so tired’. No. Because people keep on coming. Even people from Tacloban came here for treatment because we are the only one that is open. Tacloban is down. Saint Paul’s is down. All the big hospitals are down because of the typhoon surge.”-Mary, decision-maker (Town Hospital)*

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<sup>28</sup> Anonymized name of a foreign team of medical and army veterans that flew into the disaster site.

<sup>29</sup> The clearances for medical missions are provided by the Bureau of International Health Cooperation of the Department of Health. Procedures are published here: [http://portal.doh.gov.ph/Medical\\_Mission.html](http://portal.doh.gov.ph/Medical_Mission.html)



At the field personnel level, *Anna*, the hospital cook, has been on duty in the hospital since the morning of the super typhoon. She usually relied on the dietician's meal plan for the patients that are admitted. However, the dietician was not able to make on sit after the typhoon. *Anna* did not feel confident about preparing the meals without guidance as she was not formally trained for the job, and was additionally overwhelmed by the amount of work that she had to fulfill in relation to feeding the patients. This included going to the market on her own, sourcing food, planning the meals. Aside from that, there was nobody to relieve her from her duty. Despite this, she also understood and acknowledged the importance of continuously nourishing the patients. She emphasized during the conversation, *'I'm dead'*.

*"Oh no – I'm dead. I am the only one here left to arrange the food of the patients that come. [...] But even though I was not on duty anymore, even though there was no dietician, I kept coming here. I went to the market. What will the patients eat? Food is important. It is important that they eat three times a day. If I don't cook, what will happen? Medicine? But medicine is only 20 percent. Food is 80 percent." – Anna, field personnel (Town Hospital)*

3. For *Energy District*, the adjusted goal was to clear the roads, to re-energize the core institutions of their coverage areas within 40 days set by a government mandate, to ensure workforce turnout in the immediate aftermath of the typhoon, and to source cash to release employee salaries and procure equipment that were necessary for the restoration process.

To attend to these operative goals, the greatest setback from the side of *Larry*, the decision-maker of *Energy District*, was to keep his people motivated to keep showing up to work and re-energize the coverage areas effectively and efficiently. Certain challenges made it difficult for him to ensure this – first, he had to make sure that the employees felt secure that they would get paid; second, he had to make sure that the linemen would be able to sustain their work until human resource complement could come in; third, he had to inspire the people to achieve their goals despite the scarcity of resources; fourth, he needed to find a way to normalize the collections in order to increase the cash flow of the cooperative. He did not have enough cash in his vault to pay all his employees, and unfortunately the banks are offline. The external help from *Task Force Kapatid*, the network of volunteers from other electric cooperatives, was lean, their cooperative was not prioritized in the distribution of equipment and relief, and finally it did not seem ethical to get the private consumers to pay for the electric service after the restoration because they themselves were victims. Morale was waning among the employees, expressing that they were already considering ‘*how many years it might take to restore everything again*’.

*“[Energy District] was totally flattened by typhoon Yolanda. The big question marks were: is there still hope for this electric coop? Can we restore its facilities to continue to serve the people? How do we survive with the enormous PHP 38 million losses? Can the management still compensate for the workers? Should there be retrenchment of employees?”*

*Should I tell my employees that we were running out of money for their salary? What about the necessary expenses? Where will we get that amount?*

*I wondered why there was no Task Force deployed to us yet. I called up [the one in charge], 'why has the Task Force not arrived in [our cooperative]? He said, 'no, all Task Force from our region are already deployed in your region. I already contacted the president in your region'. It turned out that the president held all the Task Force to service his area first." – Larry, decision-maker (Energy District) from personal account (3.6)*

To this end, *Larry* had to consider various management techniques to keep the organization effective. There was no pre-existing template for how he could address the situation, as he was traversing the turf and politics of the overall institution. Being a newly appointed general manager, just a few months before the super typhoon, he was also navigating the negative perception that preceded the organization.

*"You see, [this organization], its image in the National Electrification Administration (NEA) before, it was like... imagine if it were among children, it was not the favorite because it was stubborn. Something like that, you know!" – Larry, decision-maker (Energy District)*

These challenges, however, could not define the way that the organization was going to meet its operative goals, considering that the mandate to restore the electricity in all coverage areas was a '*marching order*' from the Philippine government. While *Larry* bargained for an extended deadline, the request was reprimanded. He had to be resourceful in realizing the organization's goals.

*Larry* then cascaded the '*marching order*' to his subordinates. From the side of the field personnel, they were oriented towards staying in

action because *Larry* guaranteed that they would get their monthly salary – even though they initially did not have the resources, e.g. a boom truck, to re-erect the utility poles. Some of them also initially expressed hesitation because of all the uncertainties surrounding the tasks they had to undertake, but they resolved to work it out nevertheless.

*“We were the ones who did it [clearing of the roads]. Our first aim was to make sure we could still salvage the materials that were still useful. Okay, how do we get the materials that we could still use if we do not clear the roads? The [government agency in charge] of the clearing arrived... it was so long... they arrived one or two weeks later. The truth is, we were the ones who clear the roads from Tacloban to Ormoc. We were the group which cleared the most roads alongside the police force. On our first day, we slept at past 2 in the morning.”*

*(You did not notice the time pass?)*

*“No more! We did not even feel the hunger! [...] Any one of us you ask, our number one priority was... how do we buy the things we needed to restore our own homes? How can we buy food if we don’t earn the money?” – Arcie, field personnel (Energy District)*

As soon as the roads were cleared, they had to keep up with the task of re-erecting the poles. *Larry* motivated them to waste no time, and so waiting for necessary equipment had not become an option. They had to be resourceful and find a way to re-erect 40-footer utility poles.

*“There really was no truck or equipment. Just people. We did not have equipment here. It was just initiative. We used the ideas of the ‘olden’ people.” – Arcie, field personnel (Energy District)*

Lean teams of linemen and engineers in the cooperative had to come together and work a process that could match the human strength

necessary to erect the poles – accomplishing the forty-day marching order rested on this, as well as conserving their own personal needs through a guaranteed income.

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Despite the challenges, the organizations remained oriented towards their respective goals. Various courses of action were undertaken. Where possible, the organizations retained existing procedures, including calling for external reinforcements. However, the dilemmas presented above were some of the most pressing challenges that also prompted the organizational members to consider other actions that were not necessarily within the bounds of existing templates. Indeed, the dilemmas they faced often became a precedent for various types of improvisation. Often, these acts of improvisation had become a means for them to realize their respective organizational goals. Details of such actions are discussed in the following section.

### ***iii. Carrying Through: Acts of Improvisation***

As narrated in the previous section, certain dilemmas on the mismatch between existing templates for action and goals had become precedents to undertaking various forms of improvisation. Each example of dilemmas provided above are a part of a narrative that demonstrates how the organizational members were propelled to improvise in order to achieve a particular organizational outcome. Note that the dilemmas presented above are unique in that they

required specific types of action, which in turn resulted in very specific acts of improvisation. Among others, the acts of improvisation undertaken include: (a) resource improvisation, which is akin to bricolage, (b) role improvisation, and (c) process improvisation.

First, **resource improvisation** occurred in a manner that the organizational members spontaneously invoked bricolage, i.e. using available materials at hand (Baker et al., 2003; J. Cunha & Cunha, 2003; M. P. Cunha et al., 1999), in line with the operative goals of the organization. Resource improvisation abounded during the aftermath of the typhoon as the organizations tried to attend to their respective operative goals. All three organizations tried to salvage existing resources that could still be useful in some way to resume their operations. For example, *Water District* resorted to manual clean-up of the dam, and *Town Hospital* worked around their space constraints to secure the patients.

Among the various examples narrated by the organizations, one of the most striking examples is that which was undertaken by *Energy District* in re-erecting the flattened utility poles. When the operative goal was adjusted to re-energize the cooperative's coverage areas within a constrained time frame, the team of linemen and engineers had to work around scarce availability of core equipment to re-erect flattened 40-footer concrete utility poles, which they characterized as a '*no choice*' situation.

*"Everybody wanted to have a boom truck. Of course, it was up to me, I also wanted to have a boom truck... high tech [solution]. But the problem is, there really was none. [...] We initially used a jeepney to pull the poles, but it broke*

*down. So no choice, so we have to go back to the past.” – Arcie, field personnel (Energy District)*

By ‘past’, Arcie was pertaining to ‘*knowledge of the olden people*’, which became a basis for him to lead his team to create a substitute equipment to manually re-erect the utility poles. They used strong bamboos and assembled it to form the shape of a giant scissor, calling it ‘*salanggunting*’, which is derived from the base Filipino word, ‘*scissors*’:

*“Some of our colleagues opposed, ‘no that can’t work! We need something else!’, but we did it. So we made two bamboos meet at one intersection, to form the shape of a scissor, and then that was what helped push the poles.”*

*(What pushed the poles?)*

*“People! Two bamboos. You tie them together at an intersection, then you use a rope to manage the direction to erect the poles.” – Arcie, field personnel (Energy District)*

This was an example of resource improvisation that enabled the organization to get some headway into realizing their goals. For at least a week after the typhoon, the organizational members deployed in teams used this equipment, which in turn allowed them to re-erect an average of 40 poles until the Task Force Kapatid was able to send their reinforcement bearing complete equipment, including a boom truck.

Another act of improvisation that was employed was that of **role improvisation**. This was mainly undertaken in light of compensating for the absence of organizational members who was delegated for a specific task. As

emphasized in the previous sections detailing the case narrative, one of the most pressing setbacks for the organizations is the lack of human resources to match the increased tempo of operations in all organizations. All three organizations echoed the spontaneous behavior of many of the organizational members in order to keep the organization afloat. For the most part, this spontaneity resulted in the continuous rendering of duty by the organizational members. For example, when the designated person did not manage to show up for the next duty hours, the previous person who reported for duty would continue rendering duty until there was somebody they could relay the duty too. These were classic cases of spontaneously assuming the role of the person who was supposed to take the shift of the previous person in service. This continuous rendering of service, while enacted and conceptualized at the same time, was essentially an act of spontaneous extending of the job to keep the organizations functioning. For example, the utility staff and medical staff in the hospital extended their hours of duty even though they exceeded the hours rendered for their duty. Meanwhile, the organizational members of the energy cooperative had practically boarded in the headquarters until they completed the electrification process of the municipalities under their coverage area.

A more exceptional example of role improvisation that was observed is characterized by spontaneously undertaking roles that are not necessarily within the person's scope of duties. There are cases when compensating for another role did not require exceptional competencies to undertake. For example, *Larry*, the



general manager of *Energy District*, led the clearing of the highway and did not wait for the government agency in charge because it would otherwise take one more week. Likewise, many of the organizational members of the same cooperative found themselves clearing the road from one municipality to another.

*“I said, if we will wait for [government agency in charge of road clearing], I don’t think we will finish on time. So, let’s do it. We will clear the roads.” – Larry, decision-maker (Energy District)*

*“For example, our meter reader – meter reader is a part of the collections team. Instead of collecting, what they were holding were shovel and something to dig... what was that called again? Digger.*

*[Also] look, if you notice him (pointing to one of the informants who was a part of the warehouse inventories team), he is holding a computer now. During Yolanda, there was no computer! What he was holding instead were spool and shovel. To dig!” – Glen, field personnel (Energy District)*

The other organizations spoke of the same experience – they would spontaneously help where it was needed even though it was not necessarily a part of their roles anymore. Doctors would extend help to utility and kitchen staff, utility staff would assist in the admittance of the patients, among others. These examples of expanding their respective roles to compensate for the absence of a specific person did not necessarily present a dilemma. However, there have also been exceptional cases wherein role improvisation required the need for special knowledge. This had been the case with *Anna*, the hospital cook, who had to expand her role to compensate for the absence of the dietician.

*“My dietician was already in Iloilo during that time because they evacuated. So my cook was already acting as a dietician. Anyone that was not reporting for duty, their function was taken over by someone else.*

*For example, in the kitchen, the dietician was not there. So the cook took over the functions of the dietician – go to the market, draft a meal plan, but always in coordination with me.” – Mary, decision-maker (Town Hospital)*

*“For example, I am not really in charge of marketing and menu planning. I did it. I will cook. And then at the same time, I also have to serve.” – Anna, field personnel (Town Hospital)*

The same is true for *Eli*, an administrative assistant in the *Water District*, tasked originally to keep a log of complaints and be available at the office during the typhoon to help with whatever office assistance may be needed. When somebody reported that one of their lines had been damaged, he found himself going to the area with three other engineers.

*“During Yolanda, after we received that there was a damage in the line, we immediately went there. I did not say, ‘oh, let’s wait for this person because that person is assigned there’. I did not log it in anymore, I just went. It was like cutting corners, you know? Then we finished the repair fast too, and then I went back to my role.*

*My role was really to be in the office. More on, really focusing on the recording. But when it happened, there were four of us that went there to repair. Also because I had a motorcycle. I also brought a hand tool with me... to dig.” – Eli, field personnel (Water District)*

This type of role improvisation did not necessarily come easy for the person undertaking it. In the case of *Anna*, the hesitation stemmed from various aspects, but that which was most interesting for the purpose of this dissertation was her perception that she lacked formal training to approximate the kind of diet that was required for each patient. Indeed, she emphasized many times during the conversation, *‘I’m dead! I have to do everything!’* Meanwhile, in the case of *Eli*, the hesitation came from the absence of the general manager’s validation that he

could be deployed, despite the specific task that was delegated to him. He was expected to be in the office, yet there he was, helping the lean team of engineers.

Finally, a third act of improvisation that emerged among the narratives of the informants was that of **process improvisation**. This occurred in instances when organizations had to spontaneously work around existing process templates, or in extreme cases, when a process had to be created on the spot in order to achieve particular organizational outcomes. Process improvisation occurred in some ways across all the organizations. For example, both *Water District* and *Energy District* faced the dilemma of not having enough cash on hand to pay in advance for the needs of the employees, and at the same time to procure the equipment necessary to resume the services of their respective organizations. *Roger (decision-maker, Water District)* resorted to the use of his own personal resources, even though this was not warranted by the existing process.

*“We had to adopt a system wherein as a manger, I have to sacrifice. During that time, I was able to withdraw my own money. I gave them PHP 7,500 each as an assistance. And this is being questioned by the Commission on Audit. Pambihira naman kayo!<sup>30</sup> How will my employees do their jobs when they don’t even have houses. Pambihira naman kayo.” – Roger, decision-maker (Water District)*

Meanwhile, *Larry* tapped his personal network from his hometown in Mindanao, where he used to be a senior manager for an electric cooperative there. A cooperative signed a check to provide the cash that he needed to pay the

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<sup>30</sup> Expression of remarkable disbelief – no direct translation into English but this underlines the personal perception of the decision-maker.

salaries of his employees and also to buy certain equipment that are necessary for the organization to function.

*During the meet and greet with the general manager of the energy cooperative, he provided some brief snippets of what he did as the decision-maker to ensure that the organization continues to function in spite of the super typhoon. One of the problems was lack of cash to advance the salaries of his employees. Without any hesitation or signs of doubts, he promised his employees that they will get their salary. 'Just work', he said, 'do not comment. I will pay you your salary'. He mentioned that to address this, he called up 'friends' with authority in other electric cooperatives. One signed a check without having to create a resolution. This was then used to disburse the salaries. He referred to it as an 'act of disguise' prompted by the need to survive as it was 'survival of the fittest'. – from author's field notes (Document 2.5)*

*"Of course I did not tell them [that there was no access to the cash in their institutional bank]. It's bad news. It could never persuade them to go out of their houses to work and restore the lines. I told them straight, 'work. That is your duty!' I knew they were quite doubtful if I were serious with my words. [...] Some did not believe. They did not report for duty. They availed of their leave of seven days. But the believer-employees reported. On the 15<sup>th</sup> day of November 2013, the salary was released without deduction. Aside from the salary, all the employees who reported received also bundles of relief goods from our sister electric coops." – from the personal account of Larry (Document 3.6)*

Another example of process improvisation relates to the decision of the hospital to engage the foreign practitioners despite the existing policies that disallows them to undertake medical mission without the clearance of the Department of Health. *Mary (decision-maker, Town Hospital)* acknowledged that the staff was tiring themselves out and it could be counter-productive if they went on.

*"The emergency room was cluttered with blood because there were plenty of people injured because of the flying debris. [...] We were really very tired. There were so many patients. There was a lot of blood." – Mary, decision-maker (Town Hospital)*

This prompted *Mary (decision-maker, Town Hospital)* to work around the existing policies. From her end, there was no question that the foreign medical practitioners needed to be engaged as soon as possible – this was the only option for her to realize the organization’s goals. However, it was also necessary that she protected the hospital from any potential legal risk from not following the law. As a result, she developed a system where the accountability and responsibility to patient are signed by Filipino hospital representatives. This entailed an act of shadowing the foreign practitioners, where they implement the medical relief, while the Filipino doctors vetted and signed off the treatment. Throughout the conversation, *Mary* repetitively emphasized the ‘*need to know*’ what was happening because the hospital is responsible for whatever would happen to the patient regardless of who is giving the treatment. She also mentioned some differences in treatment protocols, and it was important that she knew the extent to which the medical relief was being undertaken even though she herself would not be actively and physically treating the patients.

*“Since our government would not allow any foreign practitioners not cleared by the Department of Health. But that was an emergency, so what I did was I allowed them to take good care of the patient and treat them under the supervision of my doctor. So who is ordering the chart is a Filipino doctor, my doctor here. And if ever they go to the operating room for anything – debridement or anything – I am always in the OR. [...] For legal purposes, it has to be our doctors ordering the chart. For example, they were suturing a lacerated wound – and then I said, ‘what are you giving?’ For us, we are only giving local anesthesia but for them, they are putting the patients to sleep. After five minutes, the patient would wake up and they are already done suturing the wound. But I have to know. I have to know. If something happens to the patient, they are treated in this hospital, so we are responsible.” – Mary, decision-maker (Town Hospital)*

Another example of process improvisation involved the system that *Larry* created in order to ensure that his employees would continue to render their services during the restoration process. He acknowledged that aside from the equipment, the most crucial factor that will determine whether they can realize the goal of the organization within the time frame mandated to them was the human resource complement. The task of restoring electricity across nine municipalities was very physical. To this end, one of the first things he accounted for immediately after the typhoon was the state of his employees. He made sure to account for those who initially could not be contacted and made sure that everyone was safe from the typhoon. Luckily, all of the employees survived, barring the damages their respective homes suffered and loss of properties. He created a system that resembles some normalcy for the employees. He used part of the funds he was able to source to transform the office environment into a comfortable place of lodging that could also ensure their health and safety for the next few weeks that they will be there.

*How long did you stay here [in the office]?*

*"Months including the second phase of the restoration process."*<sup>31</sup>

*So you boarded here?*

*"Yes, since we first reported to work after the typhoon, we stayed here already."*

*"We did not look at the time anymore. We would start our days at 4 or 5 o'clock in the morning. Then we would go back here in the office at 6 or 7 o'clock. As*

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<sup>31</sup> There were two phases of restoration that occurred in *Energy District*. The first phase was the mandate to restore the energy for all institutional organizations of the nine municipalities, including hospitals, local government units, businesses, schools, and other related institutions within 40 days. The second phase included the restoration for every household.

*long as we could still see sunlight, we would not stop go back here.” –  
Conversations with Glen and Arcie (Energy District)*

*“Since the effect of their jobs was very starving, I saw to it that they had nutritious food. We hired food attendants for them. They needed not to go back to the office to get the food. We delivered the food to the site. Medicines and vitamins were made available anytime of the day. They were treated special at meal time.*

*In terms of accommodation, our linemen were provided good sleeping quarters. And every morning, I woke them up with inspirational songs. In other electric coops, the linemen did their own washing of clothes. With us, the laundry washers took care of our linemen’s laundry. We took care of the health of the linemen since they got exhausted all day long. It is their best weapon to work efficiently. We saw to it that their health was not put to risk.*

*Every Saturday night, we provided song entertainment for the linemen to get them relaxed. [...] The endeavor has produced happy workers and heroic accomplishments. We all completed our mission ahead of time. It just very simple. We treat them very special and important.” – From the personal account of Larry, decision-maker of Energy District (Document 3.6)*

While this process improvisation allowed *Energy District* to achieve specific operative outcomes, the disbursement of funds needed to create this process that was meant to motivate the employees did not go unquestioned.

*“I bought two washing machines. NEA<sup>32</sup> questioned it. ‘What are you going to do with a washing machine?’ They said that the other cooperatives did not buy such things. I told them, ‘my linemen are exposed to heat all day long. When they return here, they still have to wash their clothes and clean up!’ I hired washers, so that when they arrive here, their clothes are already hung. The mattresses, I bought them. They had to at least have foams. They said, ‘what!’ I said, no, these are not expenses. You are taking care of the health of my men. Because of these men don’t have enough sleep and are not healthy, their performance the next day will not be good. So, how much are the foams and the washing machines in comparison to the output?” – Larry, decision-maker (Energy District)*

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<sup>32</sup> NEA stands for ‘National Electrification Agency’, which is the institutional level that oversees *Energy District* (see Table 5: Final List of Observations per Case and Corresponding Representative per Organizational Level on page 79).

A final example of process improvisation is the on-the-spot implementation of a rent-to-own transaction of transformers between *Energy District* and its private business clientele. During the restoration process, *Larry (decision-maker, Energy District)* knew that one of the organization's biggest challenges was to bring the community back to their respective normal states. The sooner the community can bounce back from the damages of the typhoon, the sooner their clientele can go back, and the sooner they can build their revenues again. *Larry (decision-maker, Energy District)* tested this first with the small businesses in their coverage area.

*All industrial and commercial member-consumers of [this energy cooperative] were gravely affected by the typhoon. Their transformers were wrecked by the typhoon. They had hard times to regain their business since the cost of transformers is one of the burdens to open back their business. In order to help these consumers, [this energy cooperative] formulated the rent-to-own transformer scheme. They will just pay the transformer on a monthly basis until it is fully paid so that they can easily start their business after the typhoon. Thirty eight (38) industrial and commercial consumers availed of this program. – from the 2014 Annual Report (Document 3.2)*

This scheme was implemented at the same time that the Board of *Energy District* was figuring out a way to explain it to the Commission on Audit.

*“I told the Board, let’s make a policy where instead of [consumers] buying the transformer, we as a cooperative can be the one to buy [for them], and then the member-consumers can rent-to-own. So they can restart their business. Discuss it among yourselves and whether the board approves or not, I will already include it in the advance subsidy request. Even if they are private [entities], at this point, we cannot differentiate between private and public anymore because we are all victims. So, I can be the one to justify to the Commission on Audit. In the policy statements for subsidy requests, it was not specifically mentioned that private entities are not allowed. What they [the institution] requires is that we restore the electricity of all our member-consumers. So everybody [including the business owners]. So when the transformers arrived here, sole use for their business. They don’t have money to buy, so we will buy it for them. They can pay in three years or two years – but the business will have already started. In*



*effect, among all the cooperatives that suffered the super typhoon, we were the first to go back to normal in terms of load.” – Larry, decision-maker (Energy District)*

This process improvisation was one of the successful actions that *Energy District* undertook in response to the typhoon, and while the inclusion of private entities in the subsidy request of a public cooperative that is accountable and responsible to government laws was not initially practiced and warranted, this initiative was institutionalized. At the time of the 2014 Annual Report of the organization, the scheme is already extended not just to typhoon victims but also to new applicants for commercial and industrial connections.

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These acts of improvisation demonstrated the occurrence of both individual and collective level attributes, as well as degrees to which improvisations are enacted. These are presented in the following sections.

### **C. Who Enacted Improvisation and to What Degree?**

The acts of improvisation presented above show that they are directed towards an organizational purpose. This is consistent with the definition of Moorman and Miner (1998) that improvisation enacted on behalf of the organization, or otherwise for the benefit of the organization, can be considered organizational improvisation. However, this does not discount that while improvisation may be considered *organizational*, individuals and teams act on them (Moorman & Miner, 1998a). Indeed, the data corpus for this dissertation shows how all acts of improvisation are either enacted individually or

interpersonally between the levels of the decision-maker and the field personnel, and how at the same time, they are directed towards the organizational purpose.

Table 11 below outlines each example of improvisation provided in the previous section, and highlights who enacted the improvisation and to what extent, consistent with the framework of Hadida et al (2015).

Act of Improvisation	Example	Who Enacted Improvisation	Degree of Improvisation
<i>Resource Improvisation</i>	▪ Manual clean-up of the dam ( <i>Water District</i> )	Decision-maker and field personnel (interpersonal)	Minor
	▪ Salvaging existing medical materials including sutures and medicine ( <i>Town Hospital</i> )	Decision-maker and field personnel (interpersonal)	Minor
	▪ Using relief goods initially prepositioned for Bohol earthquake victims to compensate for non-availability of food in their cooperative ( <i>Energy District</i> )	Decision-maker and field personnel (interpersonal)	Minor
	▪ Using bamboos to create an equipment that can manually re-erect the utility poles without a boom truck; equipment was termed <i>salanggunting</i> ( <i>Energy District</i> )	Field personnel, initiated by the oldest lineman in the organization (interpersonal)	Bounded
<i>Role Improvisation</i>	▪ Extending current role to account for the absence of personnel to take on the shift ( <i>Town Hospital</i> )	Decision-maker and field personnel (interpersonal)	Minor
	▪ Undertaking the role of another institution to implement a physical/non-technical task, e.g. not waiting for the government agency in charge to clear the roads ( <i>Energy District</i> )	Decision-maker and Field personnel (interpersonal)	Bounded
	▪ Expanding current role to include a different role in order to compensate for the absence of another person with a very specific/technical role, e.g. cook turned dietician ( <i>Town Hospital</i> ) and administrative assistant turned engineering aid ( <i>Water District</i> )	Field personnel (Individual)	Bounded

Act of Improvisation	Example	Who Enacted Improvisation	Degree of Improvisation
Process Improvisation	<ul style="list-style-type: none"> <li>Using personal resources/personal connections to source cash and advance the salary of the employees (<i>Water District and Energy District</i>)</li> </ul>	Decision-maker (Individual)	Structural
	<ul style="list-style-type: none"> <li>Engaging foreign medical practitioners (<i>Town Hospital</i>)</li> </ul>	Decision-maker (Individual)	Structural
	<ul style="list-style-type: none"> <li>Transforming the office headquarters into a functional board and lodging to afford security and safety of employees, as well as to keep them motivated to keep coming to work (<i>Energy District</i>)</li> </ul>	Decision-maker (Individual)	Structural
	<ul style="list-style-type: none"> <li>Rent-to-own schema for transformers among business owners (<i>Energy District</i>)</li> </ul>	Decision-maker (Individual)	Structural

Table 11: Examples of Improvisation in Case 1

The examples of resource improvisation were in the most part undertaken collectively, and often the degree of improvisation fell within the range of minimum to bounded improvisation. For the most part, the organizational members were working within the established systems and processes of the organization. One extreme example of resource improvisation was the initiative of *Arcie (field personnel, Energy District)* in conjunction with his team to create an equipment that can be used as a substitute for the boom trucks which were originally intended for re-erecting the poles. Unlike the other examples which involved reworking of the resources, this initiative by *Energy District* required various inputs from the organizational members to urgently create something from scratch that can be used as a substitute for an otherwise high-technology solution. This example was bounded because the creation process of the '*salangguntang*' as an equipment was bounded within the existing structures of the organization. Hence, in pursuing this improvised solution, the team did not go against any previously established

institution of the organization. Moreover, the *salanggunting* solution turns out to be a solution previously used by what *Arcie (field personnel, Energy District)* described as the 'olden people' back in time when the province did not have access to such equipment. Another interesting aspect of this example is that unlike the rest of the examples under resource improvisation where the interpersonal enactment of improvisation was seamless, the *salanggunting* example surfaced the role of an individual as an originator of an idea, and this was worked out in the end as an interpersonal effort.

As far as role improvisation is concerned, the examples previously outlined could be generally classified into two ways of enacting: on the one hand, there were examples that were essentially *extending* the same roles, i.e. extending work hours and taking over the shift of another person; while on the other hand, there are roles that are *expanding* in the sense that the person has to undertake a role completely different from his or her job function, i.e. *Anna* who also had to take over the role of a dietician in *Town Hospital*, and *Eli* who found himself aiding the engineers in the repair of the broken pipe in *Water District*.

The examples of role improvisation that were *extending* in nature were undertaken interpersonally as the units within the organization acted in synchronization with one another that the extension of shifts was important to bring about their targeted organizational outcomes. The degree of improvisation can be considered minor in the sense that no radical transformation of roles or processes occurred. Meanwhile, within an *expanding* nature of role improvisation, there are two particular types: first, there was a case wherein the role did not entail technical knowledge. An example of this involves the

spontaneous expansion of the role of *Energy District* as an organization to include the role of another autonomous organization that have a very particular turf to clear the roads. Clearing the roads did not entail sophisticated or technical knowledge and it was a role that the units within the energy cooperative freely initiated in order to expedite the process of achieving specific organizational outcomes. This was an act that was coordinated between the decision-maker and the field personnel, hence in effect, the level at which it was enacted was mostly interpersonal.

However, two more extreme examples of role improvisation were those that entailed specific technical knowledge, e.g. the cook turned dietician (*Anna, Town Hospital*), and the administrative assistant turned engineering aide (*Eli, Water District*). The level at which this was enacted was individual as the organizational member was delegated for a very specific task. Both examples show that the individual organizational members had very specific roles. Indeed, *Anna (field personnel, Town Hospital)* emphasized that her role is really to be a cook, and over the last 25 years that she has been in service in the hospital, the exposure she had in meal planning was tagging along with the dietician during market days and executing the specific meal plans provided to her by the dietician. Thus expanding her role to include that of the dietician was not welcomed warmly by her in the beginning, yet she undertook the role regardless.

The same is the case for *Eli (Water District)* who was delegated by the general manager to stay on duty in the office the night before the typhoon. His role was very specific as to ensure that there will be someone in the office to serve as an administrative backbone who can log and forward the reports related to typhoon damages. However, as

soon as a broken pipe was reported, he expanded his role as an aide in support of a small team of engineers who had to urgently make the repairs. During that time, he has only been with the organization for a little over two years, and he was not particularly trained for such a technical job.

Both the cases of the cook and the administrative assistant highlight their individual attributes in order to successfully carry out their expanded roles. Further, the degree to which improvisation was enacted was bounded, given that the new roles were pursued within a job template that already existed prior. In effect, the individuals were adapting to another role for which guidelines, job description, and processes already existed, and the task was for them to find a way to accommodate this new role given their limited experience.

Finally, the examples of process improvisation were all enacted at the individual level, and the corresponding degree to which it was undertaken was structural. Indeed, process improvisation was a means to work around structural constraints that would have otherwise caused the organizations to fall short of the outcomes they were vying for. As far as *Water District* and *Energy District* were concerned, it was important to make sure that the employees are incentivized to come to work, and this was done by ensuring them that there will be no disturbance in the liquidation of their respective salaries despite the typhoon. Moreover, the decision-makers went out of the way to ensure that the needs of the employees arising from the damages they suffered in their homes were accounted for to the best extent possible. In that case, small amounts of cash relief were also provided to the employees.

On a related note, they also had to make sure there was enough cash to advance the procurement of resources necessary to keep up with their operations. Cash availability was the greatest constraint in this regard, and the process by which cash could be requested and approved ahead of time was cumbersome. Moreover, the damage of the typhoon created needs that the organizations did not necessarily anticipate, therefore resulting in the procurement of materials and services that were not ordinarily considered as an organization resource. Examples of this included procurement of washing machines, blankets, food and other relief products when *Larry*, the decision-maker of *Energy District*, sought to transform the headquarters into a safe and secure space for his employees who undertook very physical task of restoring the electricity. While the decision-makers anticipated that expediting the process entailed bending, or to an extent deviating from, the process templates, which in turn would have resulted in them being subjected to questions by the institution, they nevertheless went ahead with the process improvisation.

Meanwhile, the example of engaging foreign medical practitioners despite strict provisions in the law was also an individual decision undertaken by *Mary* as chief of *Town Hospital*, who understood that while there were risks to not following the process template, rule-bending would have been the only option for the organization to realize its goals at the time of the disaster response. On that note, she made the call to bend the rules and deviate from the process provided by the law, justifying on the basis that it was an 'emergency'. All these examples of process improvisation entailed in one way or another some form of *rule-bending*. As a result, the degree to which the improvisation

was undertaken is characterized as being structural, given that a process to accommodate the new needs of the organizations were pursued outside of an existing template.

The final example of process improvisation did not necessarily entail *rule-bending* as much as it entailed a process of *rule-creation*. This was apparent when *Larry (Energy District)* pitched the idea to create an on-the-spot rent-to-own scheme of transformers for business owners. This scheme was simultaneously pitched and implemented on *Larry's* initiative, while the approval process of the board and the governing institution were ongoing in parallel. In principle, there was no existing policy that discriminates the availability of subsidy for private entities. At the same time, there was also no existing policy that explicitly provides that private business owners can benefit from subsidies received by government controlled agencies such as the energy cooperative. *Larry* took this as an opportunity to create something that can set a precedent for the recovery process of the municipalities under their area of coverage. In the end, a policy was created that was eventually annexed to the existing process and was adopted at the organizational level. In general, all the examples of process improvisation that occurred among the observed organizations were structural: a transformation was occurring in the way that policies are practiced, whether this entailed *rule-bending* or *rule-creation*.

Another interesting point of observation is that while the level at which such improvisation was enacted was individual, there was a particular profile of individuals that emerged from the findings. Note that all of the individuals who enacted process improvisation were decision-makers. Observations from the data corpus show that these decision-makers had a general understanding of the risks that such actions entailed for



their respective careers, and they were able to approximate the benefits that the organization as a whole might enjoy in keeping with their targeted organizational outcomes, which in this context, meant realizing their respective goals. Moreover, the decision-makers embodied some form of authority to justify to the institution that they are accountable to, and some form of influence to mobilize the field personnel according to the new processes they deemed essential in realizing the goals of the organization.

#### **D. Individual and Collective Attributes at Play**

The types of improvisation that occurred in the case observations also surfaced various attributes at both the organizational and individual domains. At the organizational level, process and structure recurrently emerged from the data corpus. These were also complemented by other attributes that include '*organizational knowledge*', '*culture*', and '*assets and capabilities accessed through networks*'. Meanwhile, at the individual level, attributes that are previously identified in the literature also emerged from the data, including *individual knowledge*, and *individual skill*. Another classification of observations that are not fully captured in the existing literature includes '*personal traits*', which included accounts of individual sense-making on their personal values, leadership, and their individually sworn oaths of duty. Each of these attributes are explored in detail in the following subsections.

##### ***i. Attributes at the Organizational Domain***

Of the attributes observed at the organizational domain, two groups seem to be emergent insofar as their recurrence in the narrative is concerned. On the one

hand, there are attributes that recurrently manifest themselves in the narratives as enabling or in some way shaping improvisation. Included in this group of attributes include *organizational structure* and *organizational process*. On the other hand, a group of other attributes, including *organizational knowledge, culture, and assets and capabilities accessed through networks*, are mentioned in passing as having helped or supported organizational members in some way to undertake improvisation. The two groups differ mainly in the way that the attributes either directly enabled/shaped or merely supported/justified improvisation.

For example, both structure and process are observed as directly enabling and shaping improvisation among the three case observations.

***Organizational structure*** is defined in the literature as a form of organizational control, and a means in which delegation of tasks, coordination, and supervision are managed in order to achieve organizational objectives (M. P. Cunha et al., 1999). Particularly, the literature supports that improvisation tends to be a common resort among organizational members when structure is minimal, at best through ideological alignment or delegation of supervisory tasks to peers (Harrald, 2006; Rankin et al., 2013).

In *Case 1*, structure manifested itself in various forms of control, including the decision-making structure, certain institutional policies and mandates that are used to define the boundaries of particular actions and delegation of tasks. Contrary to the established provisions on structure in the literature, *Case 1*

provided accounts where strict compliance with the organizational hierarchy and abiding by certain mandates were prioritized.

*In many instances, the importance of hierarchy was emphasized. Roger (decision-maker, Water District), for example, mentioned that based on experience of the organization, 'asserting the structure' was the best resort for these kinds of emergencies. Mary (decision-maker, Town Hospital) also asserts the same, noting that her presence in the hospital must be felt, and that decisions will not be made if she is not around. – Notes from the field during first visit to Leyte (Doc 2.7)*

*"We have to follow the standards set forth by the government, especially in terms of auditing rules [...] we are under the auditing by COA. So everything is according to what the government requires us to do. [...] Otherwise, we can be jailed." – Roger, decision-maker (Water District)*

*"You really have to go to work! Of course you will think about, for example, the employee might say that they are worried about their family, so they will just go home... but that cannot [work]. You cannot leave because you are on duty. I did not leave. I did not leave because it is policy!" – Anna, field personnel (Town Hospital)*

*"[our organization] is different from, let's say the local government, because here, we are required to always be ready to render work within 24 hours. We are different because we are a public utility. If you are called to work, you have to report. Here, you should always be alert." – Francis, field personnel (Water District)*

*"Since we are a typhoon prone area, there is a standing order from the previous governor, the former secretary of energy, that in all calamities, the Chiefs of Hospitals should be in their posts. Meaning to say, in the hospital before, during, and after the disaster. So twenty four hours before, we make preparations. We have to be here to manage during, and especially after because of the destruction." – Mary, decision-maker (Town Hospital)*

While the emphasis on organizational structure might have implied a low likelihood of improvisation as predicted in the literature, recurrent narratives from the data corpus show that the structure became important in enabling or otherwise shaping various acts of improvisation, including role and process improvisation. Specifically, there were instances when the organizational structure

became important for the organizational members to assert their actions. For example, *Eli* from *Water District* sought organizational structure to validate his actions. He acknowledged that his decision to undertake role improvisation by expanding his role outside of the task designated to him will help the organization to realize its goal of ensuring continuous provision of water, yet at the same time, the act in itself could imply negative repercussions for him as it was an act that deviates from the task originally designated to him. To this end, he sought the structure as a means to validate his act of improvisation.

*"I still want that someone supervises me, because as you know, given that my position here is not at the level of [the engineers with technical knowledge]. But still, if I see that we have an activity that warrants an immediate solution [like the broken pipe], and because I saw that maybe I can already attend to it, so I did attend to it. There was a point when [...] I still want that the supervisor will oversee or review my action and point out my mistakes, and then slowly I will work on it so I can also increase my level of learning, you know?" – Eli, field personnel (Water District)*

On a related point, insofar as process improvisation is concerned, the decision makers exercised their authority to deviate from particular processes in order to urgently respond to the typhoon. In this case, organizational structure provided the decision-makers, by way of their organizational representation, what Weick (1998) termed as *improvisational rights*.

*"As Chief of Hospital, I have to always be available in the hospital. Since major decisions come from me, I always have to be physically present. If I am not around, the decisions would not be made. We would have lapses in the service.*

*The chief of hospital makes things possible – I always solve problems. I find ways to solve the problem, and I find ways to achieve the things." – Mary, decision-maker (Town Hospital)*

*"We have to adopt a system wherein I, as the manager, I have to sacrifice. So I used my own resources in order to have money. [...] And this was questioned by COA. COA was questioning why we are buying these things. [...] I am fighting it out with them. I will fight it out with them." – Roger, decision-maker (Water District)*

*"A lot are sick these days [during the time of super typhoon Yolanda], the hospitals need electricity. So I told them, install transformers in the hospitals. Then [the engineers] said, 'sir, you see, they have to buy the transformers'. I told them, we can deal with that policy later. I will explain that to the board." – Larry, decision-maker (Energy District)*

*"I just did it. I went straight and did not tell the [institutional] supervisor anymore what I will do next." Larry, decision-maker (Energy District)*

While the decision-makers represented a form of authority to undertake process improvisation, they also extended this at times to their own subordinates. Indeed, certain orders would be given to their subordinates, while giving the subordinates some leeway on the means by which certain actions are undertaken. For example, as in the re-erection of the utility poles, *Larry (Energy District)* provided the order and deadlines, and the specific details in enacting such order would be up to the field personnel, *'that is already your discretion'*. The same was true for *Anna (field personnel, Town Hospital)* who undertook the role of the dietician: she was given disposition to decide what meals will be given, and how to source the food, but always in constant coordination with the doctors. Finally, in relation to the delegation of tasks in *Water District*, *Roger* gave leeway to his subordinates regarding how they exercise their respective tasks *'so they will also feel empowered'*, but on the condition that he will always be informed.

In most instances, especially in process improvisation, the data corpus shows that the role of the individual enacting the improvisation emerged strongly

in the observations. Among the decision-makers, a blurring of line between the structure (manifested in the hierarchy) and the organizational members enacting it was observed. In all instances of process improvisation enacted by the decision-maker, they used their position to justify the action. Indeed, the structure provided improvisational rights to the decision-makers, and given that the decision-makers represent a form of authority that is warranted in the organizational structure, there were evident instances when the individual decision-maker became the structure itself. Specifically, these are instances wherein the individual role became an emergent characteristic that interacted with structure to bring about improvisation. Such instances are some of the observations in the data corpus that provide a strong case for a likely interaction between individual and collective level attributes, and will thus be used as a point for analysis that can likely inform how such interaction occurs to bring about improvisation that leads to a specific organizational outcome.

Another attribute that is considered as having a direct enabling influence on improvisation is ***organizational process***. In general, process is considered as a systematic and logical procedure for undertaking actions in relation to achieving various organizational outcomes. The literature on OI mostly refers to organizational process as a systematic or logical means by which information and communication flows easily across the organization. This was built on the premise that information is a crucial resource for an organization that acts in extreme environments. On that note, the more fluid the information and communication

flow across organizational members undertaking improvisation can ensure that the individual actions are coordinated to a particular outcome. Cunha et al (1999) refers to process as an *integrative tool* that can steer the actions of individual organizational members to the same outcome. This is further supported by the empirical study of Roux-Dufort and Vidaillet (2003), who posit that stronger presence of communication and interaction across organizational members can help facilitate better actions.

In the data corpus, organizational process manifested itself in various systematic procedures of the organization. This included communication and information coordination flow, but also includes other types of processes including decision-making, procurement, as well as task delegations. Each case observation in *Case 1* had pre-established systematic procedures for undertaking communication, decisions, and actions in relation to emergency response. These were embodied mostly through emergency plans, procurement plans, and organizational policies. Prior to the typhoon, these pre-established processes served as a script for normal routines within the organization.

*“Actually, before Yolanda, we have devised a communication system wherein we have already predicted that if the communication lines would be down, what we would do... So it returns back to the ancient time wherein each individual has his own station. So whatever happens there, you have to run to the next station in order to inform, and then another one does the same.” –Roger, decision-maker (Water District)*

*“So we who are here [at the office], if we receive information from the dam, or whichever area that belongs to our coverage, we will be the ones to record, we log it on our logbook. That is our role here, and then the people who are assign there [in the area where damage is identified], they were all given primary kits. All of us were stationed somewhere, and we*

*also have our respective kits. And then we were briefed. We at the communications [group], we have logbooks and pens.” – Eli, field personnel (Water District)*

However, as soon as the organization was subjected to an element of shock, the same organizational processes became a basis for which the organizational members decided to either follow or disregard. Particularly, when the processes were either inapplicable or came in conflict with the ability of the organization to realize its goals, it became a precedent for improvisation. In a way, organizational processes, particularly those that entailed conflict in achieving particular organizational outcomes, became a direct enabler of organizational improvisation.

Specifically, organizational process seems to have mostly propelled a very specific type of improvisation, i.e. process improvisation. For example, conflict or otherwise inapplicability of the pre-existing plans enabled the following process improvisation among the three case observations: (a) *Roger (decision-maker, Water District)* tapping his personal resources to advance the cash needs of the water district, and *Larry (decision-maker, Energy District)* tapping his personal network to sign a check that would advance the cash needs of the energy cooperative were a reaction to the conflict in an already existing procurement process; (b) *Mary (decision-maker, Town Hospital)* engaging the foreign medical practitioners in order to aid the lean hospital team and scarce medical resources was a reaction to the conflict in an institutional policy that provides for the



systematic procedure for engaging foreign medical staff; (c) *Larry (Energy District)* transforming the office headquarters into a functional board and lodging to afford security and safety of the employees was a creative response to the inapplicability of existing incentive system that would otherwise motivate the linemen to keep showing up to work despite the magnitude of damage in their own homes; and finally (d) *Larry (Energy District)* ordering the simultaneous creation and implementation of a rent-to-own schema of transformers that could help critical businesses bounce back was a reaction to the inapplicability or insufficiency of plans that could speed up the recovery of such businesses. All four examples exhibit the insufficiency, inapplicability, or utter conflict of pre-established processes with the organization's ability to realize its established goals. However, this acknowledgement did not entail complete abandonment of the process, but rather the process became a basis for which they would improvise. This observation conforms with the literature emphasizing that processes or routine protocols can become a basis for improvisation (Andrew & Kendra, 2012; Vera & Crossan, 2004; Weick, Sutcliffe, & Obstfeld, 1999).

The same could be observed about how organizational process elicits role improvisation. The example of role improvisation when *Energy District* decided to forego waiting for the government agency in charge of clearing the roads and manually clean up the roads themselves, as well as the example when *Eli (field personnel, Water District)* decided to join the team of engineers to assist in the repair of the broken pipe – both of these actions were undertaken as the

organizational members recognize that the existing process would delay the response and would likely affect their goal of ensuring continuous services.

*The organization members spoke of 'cutting corners'. It mainly occurred in response to the fact that the existing process would have stifled or delayed the continuity of the business operations. – Notes from the field from first visit to Leyte (Doc 2.3)*

As is the case in organizational structure, assessing organizational process as a collective attribute that enables improvisation also surfaced the emergent role of the individual. In most instances, the positionality of individual organizational members was strongly recurrent in the sense-making process of whether the pre-established processes could still be upheld. This was especially evident in the examples of process improvisation, where the decision-makers were carefully considering that improvising from the pre-established processes was not a deliberate violation of the organizational policies. Indeed, while most actions deviated from the template, the intent of the new actions was consistent with the general rationale on why the process existed in the first place.

For example, the procurement process exists for the purpose of ensuring that the organizations have at their disposal the equipment that can help keep the organization functioning. The published implementing rules and regulations of Republic Act 9184 'Government Procurement Act' provides that the procurement policy is governed by principles of '*transparency*', '*competitiveness*', '*streamlined procurement policy*', '*system of accountability*', and '*public monitoring of*

*procurement process*'.<sup>33</sup> The same document also provides for procurement clauses in relation to contracts and infrastructure engineering. Both *Water District* and *Energy District* procured goods to aid in restoring infrastructure, but in some instances, they also procured goods that were not evidently related to the response phase, e.g. *Energy District* procuring laundry services and other equipment for board and lodging, or *Water District* procuring goods to subsidize the personal basic needs of the employees. The decision-makers were questioned but in improvising around the established processes, the decision-makers reasoned out on the basis of '*emergency*', and that all their actions were still aligned with the general principles of the policy.

On the other hand, the policy on engagement of foreign medical practitioners exists for the purpose of ensuring that Filipino healthcare patients and health care practitioners are provided uncompromised and quality healthcare. As published in the foreign surgical and medical mission program of the Philippine Department of Health, the overall aim of the program is '*to ensure that all foreign medical missions shall contribute to better health among Filipinos*'. For that purpose, the program '*institutionalize[s] a sustainable system for an effective facilitation of all the foreign medical mission that shall converge all the partners and stakeholders and be supportive of the country's health goals*'.<sup>34</sup> As Mary

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<sup>33</sup> Quoted from the Implementing Rules and Regulations for Republic Act 9184 'Government Procurement Act', which is published in the Official Gazette of the Republic of the Philippines

<http://www.gov.ph/2016/08/29/implementing-rules-and-regulations-of-republic-act-no-9184/>

<sup>34</sup> Direct quotations from published policies and guidelines for engaging Foreign Surgical and Medical Missions from the Philippine Department of Health (<http://uhmis3.doh.gov.ph/fsmm/mainmenulist.php>)

(*decision-maker, Town Hospital*) decided to work around the prescribed systematic procedure for engaging foreign practitioners, she emphasized that she still preserved the *raison d'être* of the policy.

*“When I am spontaneously planning and executing by myself, when I spontaneously plan, my goal is to help other people. I think for me, as long as my goal is to help other people, nothing can go wrong. Besides, we are used to stay within the bounds of law. It is always in our mind that we have to stay within the bounds of law because we are government, and we are trained like that.” –Mary, decision-maker (Town Hospital)*

Finally, the plan for the disbursement of subsidy among energy cooperatives was based on the objective of assisting energy cooperatives to recover from the disaster. This was the principle understood by *Larry (decision-maker, Energy District)* as he was explaining the directive he received from NEA:

*“I can justify it. When they said ‘subsidy’, it did not indicate that it was not applicable to private entities. What was instead indicated was to bring back the electricity for all. So it likely applies to all.” – Larry, decision-maker (Energy District)*

In the end, the organizational process functioned as an enabler for improvisation, as individual organizational members acknowledged the impending conflict it may have in executing the actions necessary to realize the organization's respective goals. Additionally, a very specific aspect of the organizational process, i.e. its *raison d'être* as articulated in published objectives and guiding principles, shaped the extent to which improvisation occurred. That is to say, all acts of improvisation resulting from a conflict in process were still directed towards preserving the core objectives of the pre-established plans. Indeed, the systematic

logic in which a plan is supposed to be undertaken may have changed based on a new set of systematic logics that the organizational members deemed more efficient and effective to realize the organizational goal, but the main intent and purpose for why the plan existed in the first place were preserved.

Where organizational structure provides authority or what is akin to what Weick (1998) termed as 'improvisational rights', organizational process provided a starting template for which all organizational actions would be based on. Both collective attributes enabled improvisation while surfacing the role of the individual either through an assertion of structural authority (as exhibited in organizational structure), and cautiously working around the plan to ensure that the intent and purpose are upheld despite deviation from the systematic logics of established processes (as exhibited in organizational process).

Another group of collective level attributes also emerged from the data corpus but were unlike **organizational structure** and **organizational process** as they did not recurrently exhibit an enabling influence on improvisation for *Case 1*. Such attributes included **organizational culture**, **organizational knowledge**, and **assets and resources accessed through networks**.

**Culture** is one of the factors that emerged from the data corpus. Aligning this with the literature on improvisation, scholars point to organizational culture as an attribute that could enable improvisation – where the more experimental a culture is, the more likely an organization sets the precedent for improvisation (M.

P. Cunha et al., 1999; Kamoche et al., 2003; Vera & Crossan, 2005). The kind of 'culture' that emerged from the data corpus is largely tied, however, to societal cultures in general, which appears to overlap with their perception of the organizational culture. For example, when asked about other potential factors that the informants thought has enabled to undertake improvisation, they briefly mention 'culture'. This was manifested mainly in their provincial culture of 'waray waray' and 'familial culture'.

*"This is a characteristic of the Filipino. Foreigners were asking me, 'why are you still laughing when you are in a very difficult situation?' We are Filipinos, we are used to be poor and we can be happy for small things that we have. [...] We are Filipinos. We are resilient. Just like a bamboo, if you put them down, it will just go back."* –Mary, decision-maker (Town Hospital)

*"The spirit of volunteerism is very alive in the culture [of our organization]. As a matter of proof, there were many activities of the coop[erative] that were accomplished through 'bayanihan'<sup>35</sup> system or as it is locally called in Leyte as 'pentakasi'."* –From the personal account of Larry (Doc 3.6)

Among the narratives from the data corpus, the closest resemblance of organizational culture, i.e. that which is bounded in the practices of the organization, manifested itself in some form of 'diskarte'<sup>36</sup> culture, where despite the hierarchical structure of the organization, the decision-makers spoke of letting their subordinates address the problem according to how they deemed it effective. This allows them to be different in the means by which an organizational outcome is achieved, as long as the ends that the organization as a whole is seeking are

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<sup>35</sup> Cultural term in the Philippines which emphasizes the oneness of an individual Filipino with his 'bayan' which can mean town, nation, or community. The bayanihan culture refers to the spirit of communal unity, work, and cooperation to achieve a particular goal.

<sup>36</sup> 'Diskarte' is a Filipino term that loosely translates to a person's way of doing things in what is perceived to be the most effective manner.

actually achieved. This was exhibited with the examples of resource improvisation, especially when the oldest lineman advocated for a solution that was used by the ‘olden people’ and use a ‘salanggunting’ to re-erect the poles without a boom truck.

*“We were given, as long as we were following the standards, how we do it is already our discretion. Diskarte na namin yan. So long as it is done before Christmas.” –Larry, decision-maker (Energy District)*

However, the case observations did not provide enough narratives to isolate the factor of organizational culture as being instrumental to enable improvisation. For example, the data corpus did not provide enough observations to draw insights on the depth of the informants’ perception on organizational culture, or how distinct or similar they likely perceive organizational culture from societal culture. At best, culture as an attribute at the collective level may be acknowledged as having some implication for improvisation – yet the extent to which it is instrumental in bringing about organizational outcomes cannot be ascertained in *Case 1*.

Another attribute that emerged from the data corpus is that of **organizational knowledge**. In the literature, knowledge is mostly articulated as a factor that enables improvisation at the individual level. The data corpus, however, provided examples of collective experience that helped the organization to consider improvised solutions that would have allowed them to realize their goals. This was mostly the case with resource improvisation. For example, in *Water*

*District, Roger (decision-maker)* spoke of collective knowledge of the organization of manual clean-up of the dam, because that is what they previously did before the water district had any high technology solution.

All case observations exhibit the use of collective knowledge of the organization in managing a calamity, and helped them consider solutions that can entail some form of improvisation. At least in many of the contexts that the examples were provided by the informants, the type of improvisation that mostly emanated from capitalizing on organizational knowledge is that of resource improvisation.

Finally, a collective attribute that emerged from the data corpus is that of ***'access to resources and assets through networks'***. The network was mentioned briefly as having supported the organizations to obtain resources or assets. Such access to resources helped augment the ability of the organization to respond to the calamity and realize their goals in various degrees of improvisation, including resource and process improvisation. For example, *Water District* tapped their *'sister district'* in another province to help provide the resources that could aid them in undertaking general resource improvisation to manually clean the dam.

There are instances, however, when the assets and resources provided by the network motivated the organization to undertake process improvisation. Essentially, the availability of resources that could be tapped through the network was recognized as crucial resources for the organization to realize its goals. For



example, *Town Hospital* recognized that the availability of resources provided by the relief network that provided medical staff and supplies were important for the hospital to continue functioning. Hence, the process improvisation undertaken by *Mary* as the hospital chief to engage these resources was motivated by the very fact that it was readily available but was stifled by an existing policy that required clearance from the Department of Health. Another similar example is that of *Larry* (*decision-maker, Energy District*) which tapped the organizational network in another cooperative to sign for him a check that would advance the cash needs of *Energy District* itself. He recognized that this was readily available and would be instrumental in helping the organization realize its goal. The act of accessing such resource in turn motivated the organization to undertake process improvisation.

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Summarizing the collective attributes discussed in this section, the salient points from the findings are put forth:

First, attributes at the collective domain enabled or motivated improvisations for the organization. These attributes included organizational structure, organizational process, culture, organizational knowledge, and assets accessed through networks. Of these attributes, process and structure were most recurrent in the data corpus. Both attributes exhibited concrete anecdotes from the data corpus, which in turn makes it possible to infer insights regarding how instrumental they were in enabling improvisation. Meanwhile, culture,

organizational knowledge, and access to assets/resources through networks, while they surfaced from the data corpus, did not provide sufficient examples to provide an inference. Hence, insights on how strongly they played a role in enabling improvisation cannot be ascertained. At best, they could be described as being cursory in enabling improvisation

Second, among the enablers identified above, there have been instances when the role of the individual was strongly manifesting itself in aid of the collective attributes to bring about improvisation. This was the case for organizational structure, highlighted through examples wherein the individual organizational members used the structure to assert their authority and right to improvise. In the same vein, organizational process also highlighted the role of the individual, wherein the decision to undertake improvisation was largely a result of individual sense-making.

Finally, among the attributes that were considered cursory, the role of the individual surfaced in activating the networks to access specific types of resources. The next section is devoted to exploring the attributes at the individual domain that may have played a role conjointly with collective level attributes in enabling improvisation.

## ***ii. Attributes at the Individual Domain***

At the individual level, the content attributes that most strongly manifested themselves in the data corpus includes individual knowledge, skill, and personal traits.

**Knowledge** is considered in the improvisation literature as an embodiment of individual awareness of specific and general task domains, which result from previous individual experience and formal trainings. Knowledge is further linked with memory (Moorman & Miner, 1998a; Vera & Crossan, 2005), which can be manifested in individual knowledge of facts and events (i.e. declarative memory), knowledge of how to perform various skills (i.e. procedural memory), and various other knowledge in relation to the organization.

As discussed in Chapter 2, knowledge can either thwart or enable improvisation. In particular, overreliance on procedural and declarative memory can discourage individuals to undertake improvisation to favor a universally accepted knowledge. However, knowledge can also enable improvisation, on the condition that knowledge directs individuals to access to particular assets and resources (M. P. Cunha et al., 1999). In *Case 1*, the typhoon pushed the organizational members to use individual knowledge as a foundational block. Even with biases to certain memories and pre-established configurations, the typhoon forced upon the organizations a '*no choice*' situation, and prompted organizational members to their respective knowledge bases to manage the situation. Some examples of knowledge base include: specific and general knowledge of tasks

which are incurred from years of experience in the organization or in the same job function; but also of personal knowledge based on a person's experience outside the organization. Based on the iterative coding of the data corpus, individual knowledge played some role in enabling improvisation among the three organizations.

There are some very concrete excerpts explained by the informants regarding how different manifestations of individual knowledge shaped various types of improvisation, including resource, role, and process improvisation. Some of the recurrent examples are provided in Table 12

<b>Type of Improvisation</b>	<b>Case Observation</b>	<b>Action</b>	<b>Manifestation of Individual Knowledge</b>
<i>Resource Improvisation</i>	<i>Water District</i>	▪ Manual clean-up of the dam	Knowledge of engineers from previous processes of the organization
	<i>Town Hospital</i>	▪ Salvaging existing medical materials	Prior experience of 'making do' with limited resources that they have
	<i>Energy District</i>	▪ Use of relief goods initially prepositioned for Bohol earthquake victims to compensate for non-availability of food	Knowledge of decision-maker of availability of resources
	<i>Energy District</i>	▪ Creation of <i>salanggunting</i>	Knowledge of the eldest lineman of low-technology solutions employed to erect poles back when boom trucks were not available
<i>Role Improvisation</i>	<i>Water District</i>	▪ Administrative assistant turned engineering aide	Knowledge of the administrative assistant of basic digging process based childhood experience of helping his father
	<i>Town Hospital</i>	▪ Cook turned	Knowledge of the process

Type of Improvisation	Case Observation	Action	Manifestation of Individual Knowledge
		dietician	based on length of experience in the hospital and also from working closely with the dietician
	<i>Energy District</i>	<ul style="list-style-type: none"> <li>Undertaking the role of another institution in charge of road clearing</li> </ul>	Knowledge that certain resources required to undertake the job is available
<i>Process Improvisation</i>	<i>Water District and Energy District</i>	<ul style="list-style-type: none"> <li>Cash advance and procedures for accessing other resources</li> </ul>	Knowledge of existing procedures
	<i>Town Hospital</i>	<ul style="list-style-type: none"> <li>Engaging foreign medical practitioners</li> </ul>	Knowledge of existing procedures
	<i>Energy District</i>	<ul style="list-style-type: none"> <li>Rent-to-own scheme for transformers among business owners</li> </ul>	Knowledge of existing procedures

**Table 12: Manifestations of Individual Knowledge in Various Types of Improvisation**

Among the examples provided above, there are two main observations. First, experience from previous jobs, with the organization, or from personal life is a manifestation of knowledge that enabled individual organizational members to undertake various actions. Such experience provided a knowledge base for various options that might have been done previously and may be useful for the current situation they were trying to manage.

*“Multi-tasking is common in our hospital even before and after the typhoon. For example, the administrative officer is the acting cashier right now and the supply officer also. Me, I am the chief of hospital but I also act like a resident physician because I do the outpatient consultation and sometimes I go to the ER. The medical records clerk right now is our sanitary inspector [...]. Our social worker is also helping in the medical records. Our pharmacist is the billing clerk, sometimes the cashier. So there are a lot of things that we do using only one person. We are used to multi-tasking.” – Mary, decision-maker (Town Hospital)*

*“Look, it was also my personal experience. When I was a child, just because I was studying did not mean I should not help around the household chores. So I know some of my way around [doing physical chores], I know how to dig. [So during the typhoon], I was tasked to dig, while the engineers were in charge of cutting, repairing the pipes.” – Eli, field personnel (Water District)*

*Eli was explaining how his personal knowledge from the books he read, which were particularly inspirational and motivating for him, was integrated to help his peers manage the situation during the typhoon. He volunteered to help in any way he could. [...] He also explained that his personal experience as a child, helping his father shove their land, which years later during the typhoon, became useful to the engineering crew. – From field notes (Doc. 2.14)*

*Larry explained that what also helped manage the situation was his sensitivity as a visual artist. He mentioned prioritizing ‘meaning over structure’. – From field notes (Doc 2.6)*

A second interesting observation is how bounded and structural types of improvisation seem to have been initiated by individuals with very specific knowledge. Particularly, there seems to be an emerging profile from which such specific knowledge is hosted – and based on the data corpus, this profile includes those of the decision-makers and members of the organization who have been in service for a long time in the organization.

First, the decision-makers exhibited both deep and wide knowledge of the organizational processes, the community, and also the various options available for them to access certain resources. For example, all three organizations knew what types of resources can be made available to them – which is reminiscent of the Cunha et al.’s (1999) assertion that enacting improvisation also relies on the intimate knowledge of organizational members of various types of resources.

Indeed, when *Water District* and *Energy District* undertook process improvisation, they were propelled by knowledge of existing resource that they could access. They knew that there were various resources, either afforded by personal resources, or links with various networks – and the objective was to find a way to access those resources regardless of whether the existing processes allowed it or not. The same was true for *Town Hospital*, where there was knowledge of the availability of medical supplies and medical personnel, and the priority for action became a quest for a solution on how to access that resource, which ultimately entailed process improvisation. There were also instances when decision-makers mentioned that they knew the processes so well, which made it possible for them to assess up to what extent they can overstep the organizational prerogative, i.e. undertake ‘rule-bending’ improvisation.

*“We are used to stay within the bounds of law. It is always in our mind that we have to stay within the bounds of the law because we are government, and we are trained like that.” – Mary, decision-maker (Town Hospital) in acknowledgement of the extent to which she is able to tweak the processes and policies to engage the foreign doctors without deliberately ‘breaking’ the law*

The same was the case for *Larry (decision-maker, Energy District)* when he considered the policy on subsidy and undertake process improvisation through a rent-to-own scheme of transformers which private organizations can access during the recovery process.

Another observation in terms of the profile of people who are able to use knowledge to undertake types of improvisation is that of the eldest members of

the organization. This was the case when *Arcie (Energy District)*, who happens to be one of the oldest member of the organization, with more than 25 years of experience in the same organization, and who has experienced seven changes of management throughout his career.

*“Magic was a collective word used to explain how one unit managed to put up the utility poles without a boom truck. This came from what was termed as ‘olden knowledge’, which was interestingly put forth by Arcie, the oldest lineman in the organization. – Notes from the field during second visit (Doc 2.15)*

The same could be said of *Anna*, the cook-turned-dietician (*Town Hospital*), who has served the hospital over the course of 30 years, and whose job function has rotated across the organization. She had explained, for example, that even if she initially did not feel comfortable to expand her role, she nevertheless did it, owing in part to her knowledge of policy and working with the people. She asserted, for example:

*“Even if I did not join the dietician during market days, I already have an idea. You already know the policy and how things run here. [...] Especially because you’ve been here for a long time. If you work in this hospital, you will have an idea.” – Anna (Town Hospital)*

Another individual attribute that emerged from the data corpus is that of **individual skill**. The literature defines skill in very specific terms, i.e. performative and affective skill (M. P. Cunha et al., 1999; Kamoche et al., 2003; Roux-Dufort, 2007; Vera & Crossan, 2005). In this dissertation, skill is operationalized as the culmination of both types, and both manifested themselves in the data. On the one hand, general (performative) skills are manifested in expertise related to the



way that a job is performed. For example, *Larry (decision-maker, Energy District)* mentioned that their strategy for preparation and response during the typhoon was also due to his '*sense of imagination*' – while there was little certainty around what '*category-5 super typhoon*' meant, he displayed his ability to '*imagine the hit*' and strategize around it. Another example that is common to all three case observations is the ability of the decision-makers to foretell and approximate the needs of the organization, whether in terms of resources or providing a sense of order amidst the chaos. In some excerpts from the data corpus, performative skill was seen to have enabled the way in which individual organizational members undertook role improvisation. For example, when *Eli (field personnel, Water District)* decided to undertake role improvisation, he attributed his initiative to his '*entrepreneurial mindset*' which he acquired from experience and some other personal touches he could integrate with the current situation. To this end, he was bent on making sure he exercised what he could to do help the organization get back on track:

*"I think more than my experience, what was really major [that which made him decide to expand his role] – was that... you see I read a book 'How to Win Friends and Influence People' – that book by Dale Carnegie. I read it in 2008, and I read that book over and over again. So I think I was able to internalize the meaning of the book, and I slowly applied it to my personal life and my work, and I think the outcome was somehow positive." – Eli, field personnel (Water District)*

On the other hand, affective skills relate to the emotional ability of individuals to manage and display individual resilience towards stress. Examples of this included individuals recognizing the need to '*conserve themselves*' physically,

emotionally, and mentally. This was the case when the respective decision-makers of each case observation recognized the need to ensure safety of the field personnel, and know to what extent they could still continue fulfilling their respective duties. To an extent, this example demonstrates how affective skill propelled process improvisation among the parts of all three organizations. For example, *Roger (decision-maker, Water District)* recognized the personal needs of the employees and acknowledged that he could not compel the employees to work given the damages they had to deal with in their personal homes. This motivated him to undertake process improvisation where he advanced the cash needs for each of his employees. Likewise, *Mary (decision-maker, Town Hospital)* was motivated to undertake process improvisation in engaging the foreign medical practitioners because she recognized the need to relieve their lean medical staff of work. Lastly, *Larry (decision-maker, Energy District)* acknowledged the strenuous work of his employees, which in turn motivated him to undertake process improvisation as a means to ensure that the employees can remain at their optimum capacity to work.

*“Our employees live by their own salary through the water district. I cannot just call, you know, their attention and compel them to work without any salary for them so they can take care of their family. [...] During that time, I was able to withdraw money. I gave them 7500 PHP each as an assistance.” – Roger, decision-maker (Water District)*

*“Now, one doctor, after staying here, she had an asthmatic attack so she had to go home. So, two of us only [who were left]. At 5 O’clock, the resident physician on duty is already very tired and coughing. [...] I asked the mayor for help, I said ‘mayor, we cannot go on anymore because we are so tired and we are running out of supply’. Then the mayor [asked] that the municipal health officer to go on duty that night so that we can rest. And then, we were three already. So at least we had a breather. And then by Friday, [foreign medical team] – the ex-marine doctors*

*came, and then said 'what do you need?' Then I said 'medical personnel and supplies.' They said, 'tomorrow.' And then they came. They were the one that came complete with medical supplies and personnel. But the government would not allow any foreign practitioners not cleared from the DOH. But that was an emergency. So what I did was I allowed them to take good care of the patient and treat them under the supervision of my doctor." – Mary, decision-maker (Town Hospital)*

*"We treated them [the linemen and the electricians] differently in our coop. They were our special guests. Since the effect of their job is very starving, I saw to it that they had enough nutritious food. They needed not to go back to the office to get food. We delivered the food to the site. Medicines and vitamins were made available any time of the day. They were treated special at meal time." –Larry, decision-maker (Energy District)*

Among the examples of individual skill and throughout the narratives emerging from the data corpus, it was apparent that most of those involved demonstrated a natural predisposition to help. While this was a common tone among those who were interviewed, an interesting observation that surfaced is that there seems to be an emerging profile of an individual who recognizes the need to either step out of their roles or existing organizational templates to achieve a certain outcome. Specifically, the observation is that those who are able to integrate their respective general skills to find solutions (that were mostly improvisational) and achieve organizational outcomes held a position of authority (as was the case for the process improvisation undertaken by the decision-makers). There was a singular instance where skill drove role improvisation for a young member of the organization (i.e. the administrative assistant turned engineering aide – *Eli* from the *Water District*). Between the two profiles, those with the position of authority were more likely to come up with solutions that had structural effects on the organizational outcome.

A final attribute that emerged from the data corpus are ***personal traits***<sup>37</sup>, which go beyond skill and experience. Personal traits had to be coded beyond individual skill and individual knowledge because they included references to the individual's self-perception of their respective roles, anecdotes about personal guiding mantras or philosophy based on their personal histories, and their personal values. In the data corpus, references to personal traits were recurrently articulated by the decision-makers as a driver for their actions. For example, *Roger (decision-maker, Water District)* explained his personal history and what his mother taught him as he was growing up, which in turn influenced his management style and the manners in which he takes decisions for the organization.

*"I have to do it (referring to the process improvisation where he tapped his personal resources to advance the cash needs of the organization). So here is my secret – this I can share with you. My mom, who has already passed away, she told me 'daig ng maagap ang masipag'<sup>38</sup> (he who is diligent is overcome by he who is punctual)'. Everything you do, you have to be ten, twenty steps ahead. That's what my mother told me, which I practice. [...] That's why, here in the office, I already made that call – 'inagapan ko na' – [to act ahead of what the organizational process warranted]." – Roger (Water District)*

Another example involves *Mary (Town Hospital)*, who referred to her orientation and disposition to help, when asked what drove her to undertake process improvisation.

*"For me... personally, the dedication to my work and then second is the desire to help. You see, when you see the people here, they really need medical help and I know that I am the only one. This is the only hospital, between Ormoc and Tacloban, this is the only hospital – so we can never give up and say 'oh we are so*

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<sup>37</sup> Note that the term 'personal trait' is grounded on the data. While personal traits may be related to existing trait theories in the field of psychology, tying the findings of this dissertation with the said theory is beyond the scope of this study.

<sup>38</sup> A Filipino proverb

tired.’ No. Because people keep on coming. Even people from Tacloban came here for treatment because we are the only one that is open. Tacloban is down. St. Paul’s is down. All the big hospitals are down because of the typhoon surge. And then I think when [the foreign medical team] came, they said ‘oh, doctor, you look so tired’. Maybe because it was obvious. ‘You go home and rest’, and I said ‘no, no’. I don’t have to leave the hospital. I am responsible. Although they are here, I have to be here.” – *Mary (Town Hospital)*

For *Larry (decision-maker, Energy District)*, he tapped into various traits he has including being sensitivity, presence, and leadership, but reiterate that all of these boiled down to the core values of being ‘*miracle-*’ and ‘*God-seeking*’. In both his personal account and interviews, he recurrently referred to his spirituality as his guiding principle. When asked how he came to undertake the actions in transforming the office into a safe space of board and lodging for his employees, as well as in pioneering the ‘rent-to-own’ scheme for transformers – actions that are not necessarily warranted by existing institutional processes, or actions that might be rule-bending in nature – he referred to traits in complement to skill and knowledge:

*“The bottom line, really, is God. Because sometimes my assumptions, whatsoever... but if there is no God – [what then]?” – Larry, decision-maker (Energy District)*

*“We conducted a meeting with the Task Force and presented the game plan. Our mission is quite impossible. But if it is really impossible, then we will create a miracle. We did the impossible. We finished the construction of like for the [water district] in four days. Forty poles were erected in a day. On the 19<sup>th</sup> of December 2013, all the backbones of the nine municipalities under the coverage area of [our cooperative] were lighted. For the half-hearted, our task was really impossible. But for the believers, it was possible. Before we started the restoration, we hold a Eucharistic Prayer to all the workers. We were convinced that we have a Big God in our midst and that no impossibility can hinder us. [...] Leaders must have this conviction of the miracle maker. Your pessimism or optimism cannot be hidden. It is always sensed by your people. Your attitude speaks volume. It will make and unmake the heart of your men. [...] As a leader, you are the first believer of your product. What is your product? Your product is the mission to accomplish. You should not doubt.” – Personal Account of Larry (Doc. 3.6)*

Among the excerpts from the data corpus, there was also the recurrence of the decision-maker's perception of their role as '*managers*'. In many instances, they would emphasize that this is the way they embody their roles as a manager, which is somehow linked to their position of authority and representation in the overall structure which provided some 'improvisational rights':

*"I have to take charge in such a way that all my employees will cooperate on what we are going to do. The only thing I want to give emphasis to them was this – if ever this water district falls, everybody falls. [...] It is something as if you are saving someone who is on the brink of death that you need to do something without any reservation at all. Therefore I had to do that, that's how I observed myself. [...] So I have to do, somewhere I have to act, I mean do something in order to help. [...] For me, in my opinion, that's what a manager is supposed to be. You have to do some, I mean, you have to find a way. You have to do something in order to make it work."* – Roger (Water District)

*"We have to act fast – because we are saving lives! [...] The Chief of Hospital makes things possible – I always solve the problems. I find ways to solve the problem, and I find ways to achieve things. I think, for me, I wish all chiefs of hospital are hands on and on top of everything. By doing that, we can achieve things."* – Mary (Town Hospital)

*"The command was very important. But other than the hierarchy, it was really presence. It demands presence. Especially during the typhoon. That thing they call 'long distance love affair' [of the manager being in the office and the field personnel on the ground] cannot work, You have to be involved! You really have to be there, direct. It would be better if you are already on the field. I was on the field."* – Larry (Energy District)

*"As a leader, if you want to know the life of the lineman, then be a lineman. I am not telling you to climb the posts, but by being with them on the field, you will know how exhausting it is to construct lines amid rain or shine."* – Personal Account of Larry (Doc. 3.6)

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Among the three attributes, recurrent excerpts from the data corpus illustrate how the role of individual organizational members was magnified in

enacting improvisation. While all attributes of knowledge, skill, and traits were present in both levels of the decision-maker and the field personnel and provide evidence of enabling different types of improvisation, including resource, role, and process improvisation, there are two main observations: first, that there is an emerging profile at which these individual attributes can become most instrumental in bringing about bounded or structural effects on organizational outcomes. Particularly, the profile mostly falls under the bracket of decision-makers, or otherwise individuals who have a deep history with the organization that in turn affords them some bargaining capacity to justify their actions with the organization.

Second, knowledge and skill (both having been explored and explained in the literature on improvisation) were often complemented by traits that embody personal dispositions, beliefs, values or perception towards the role that they represent. These traits were often referred to by the individuals to anchor their decision to undertake various types of improvisation.

Ultimately, exploring these individual attributes magnify the active role of individual organizational members in making sense of the actions they need to undertake to achieve a particular organizational outcome. All three individual attributes were seen to be playing a role equally with, or sometimes more strongly (as in rule-bending process improvisation) than collective level attributes in shaping improvisation to realize the organizational goal.

## E. Chapter Summary

This chapter presented the core findings from *Case 1*, observed from three organizations: *Water District*, *Town Hospital*, and *Energy District*. Some of the salient points from the case are as follows:

1. As presented in the narrative, all the organizations observed were apprised of the forthcoming typhoon a few days before it made landfall. Within the scope of the announcement, all three organizations made necessary preparations and set a clear goal that is common amongst all of them, namely: to ensure continuous operations in the midst of the typhoon. However, the evolution of the typhoon into a category-5 super typhoon with an unexpected storm surge displaced the community and in turn overwhelmed the capacity of the organizations to respond to the typhoon, which in turn posed some threats in the likely sustenance of their respective goals.
2. The setbacks that each organization suffered, including damages, scarcity of basic resources including key equipment and supplies, as well as the setbacks experienced by the organization in keeping a steady work force complement considering that most employees were victims of the typhoon themselves, had some implications for the sustenance of their respective goals. In particular, the core official goal that stands in relation to their respective roles as disaster critical organization was to ensure continuous business operations in the midst of the typhoon. In order to realize this goal, it was important to adjust their respective operative goals (refer to Table 10). Such adjustments often meant



working around and reworking the existing templates for achieving specific outcomes, which in turn became a precedent for improvisation.

3. Improvisation manifested itself in three ways: through resource improvisation (akin to bricolage), role improvisation, and process improvisation.

a. Most acts of resource improvisation were done interpersonally among groups, and were minor insofar as degree of enactment is concerned.

One of the extraordinary examples of resource improvisation which highlights the role of the individual is the excerpt involving 'magic man', who tapped knowledge from the 'olden people' to create a technology that can be used to immediately re-erect the utility poles in the absence of high technology equipment. This solution is rather radical and innovative insofar as finding a solution to realize the goals are concerned.

b. Role improvisation was undertaken in two manners. First, there were acts of role improvisation that were 'extending' in nature. This meant that the organizational members had to extend their duty times to compensate for the absence of other organizational members who were also within the same job function. On the other hand, there were also acts of role improvisation that were 'expanding' in nature. In contrast to an extending type of role improvisation, this type of role improvisation entailed undertaking a role that was often outside of the job function of the organizational member. Two concrete examples

included the experience of *Eli (Water District)* – an administrative assistant turned into an engineering aide in the process of restoring the broken pipes, and the experience of *Anna (Town Hospital)* – a hospital cook turned into a dietician in the process of ensuring that the patients are provided the basic care, including being fed the proper diet.

- c. Finally, process improvisation was present among all three case observations, and were primarily undertaken individually, i.e. by the decision-makers. The degree to which most of the process improvisation were undertaken were structural, whereby decision-makers resorted to either rule-bending or rule-creation (instead of rule-breaking) in order to keep up with the sustenance of the goals of their respective organizations. Examples of process improvisation included the following: *Water District and Energy District* working around the procurement process to advance the cash needs of the organization; *Town Hospital* engaging the foreign medical practitioners in order to increase their human resource complement necessary to keep the hospital operational; *Energy District* transforming the office into a safe space among the employees while at the same time creating a routine unusual of an office routine in order to keep the employees motivated to restore the electricity among nine municipalities; and finally, *Energy District* adopting a rent-to-own scheme for the business entities and backbone institutions to acquire transformers necessary to

bounce back and normalize business operations, which would in turn expedite the normalization process of the revenue collections of the organization.

4. As far as the data corpus illustrate, various attributes at the collective-level as well as the individual-level shaped the enactment process of improvisation.

- a. At the collective level, attributes such as organizational structure and organizational process recurrently emerged from the data. On the one hand, structure provides 'improvisational rights' which empowered the individual organizational members to assert acts of improvisation. On the other hand, process was important in that it became a starting point for assessing whether it was in conflict with the goals of the organization. In a way, process acted as a working script for the organizational members, which in turn became a takeoff point for improvisation, where the organizational members deem it necessary. Other collective level attributes including organizational knowledge, culture, and assets accessed through networks also emerged from the data but as cursory enablers to improvisation.
- b. At the individual level, attributes such as skills and knowledge were found to be important in shaping a specific type of improvisation. Both attributes have been previously identified in the literature, and it reinforces the findings of the existing body of literature. However, an additional attribute found at the individual domain which emerged

from the data is that of 'personal traits', which is a culmination of personal values, guiding principles and philosophies based on the organizational member's personal histories, and other traits. This played an important role in the sense-making process and assessment of the individual organizational member in relation to the kind of action they would be taking.

5. Among the attributes found at the collective and individual levels, there seems to be an emerging profile of those who are able to harness an act of improvisation that would be instrumental and tightly coupled with the sustenance of goals.

In the following chapter, the findings of *Case 2* will be discussed following the same approach undertaken for exploring the narratives in *Case 1*. Details regarding the shock, the precedents to improvisation, the acts of improvisation, alongside the form and content attributes of improvisation among two organizations with different dispositions in terms of size, scope of service, and proximity to the field prior to the typhoon will be discussed.

## 5. CASE 2: LARGE ORGANIZATIONS AND THE TYPHOON THAT 'OFFERED NO PATTERNS, IT WAS LIKE REBUILDING SOCIETY ALL OVER AGAIN...'

### A. Narrative from the Field: 'You could not look for a pattern. Nothing was applicable...'

#### *Phase 1: Normal preparations*

'It was just like a normal preparation,' mused *Captain Troy*, who, at the time of the response and relief efforts during Typhoon Haiyan, had been designated ground commander of the airport area. He recalled the events and the efforts of various units within their organization, and also the cooperative efforts amongst various public authorities. Five days before the typhoon, he emphasized that the Philippine authorities had been tracking the typhoon. He recalled that at the time, his impression was that the the staff operations and various response units of the military organization *HQ* were at their busiest.

*Jess*, another military officer expounded on the details of their preparations. He emphasized that there was initially an advantage of information, owing it to the ability of the institutions to forecast impending disasters, especially typhoons, 'for example, a storm is brewing here in the Pacific, it will enter [the Philippine Area of Responsibility]. We already know that. In fact, we knew it was going to be a strong typhoon, and for that size, we were preparing.' Alas, as the typhoon entered the Philippines, *HQ* found itself navigating a context that was not only unprecedented but also unanticipated. *Jess*

emphasized that the challenge was not the absence of information regarding the typhoon, but the magnitude of the 'hit'. They found themselves in the same position as many other organizations in the country: 'we did not expect it to be that strong.'

While the military was undertaking all necessary preparations prior to the typhoon in their headquarters in Metro Manila, another disaster critical organization, a telecommunications firm, *Telco*, was also on its toes in terms of preparations. While a private entity, they become tightly coordinated with the government, which is preceded by a government mandate. *Dave*, one of the senior members in charge of the response and relief operations of *Telco* recalled the days leading to the typhoon. He mentioned that there were teams specifically deployed to monitor the weather, and create alerts. Beyond what was being forecasted, they also triangulate across other sources to increase the level of accuracy of the information that they have. As early as five to six days before the typhoon, they started contacting and alerting their colleagues both in the headquarters but also on the field.

"We alerted the technical side, the human resources, and the sales people because they are the ones on the ground. We started looking at – 'okay, what do we do? Where are we weak [as an organization responding to this typhoon]? Do we have all the reinforcements needed?' Et cetera, et cetera. All the employees in the path of typhoon were alerted to make necessary preparations, and then three days before the command center [of the telecoms group], the preparations intensify even more, alongside with the arrangements with external partners." – *Dave, field personnel (Telco)*

All the mandates, including specific instructions directly provided by the incumbent Philippine President at that time to prioritize the likely demands in restoring the services of the telecommunications sector, were in place.

***Phase 2: The Typhoon came, and ‘pluk!’ goes one signal, and another, and another...***

Communication was key to coordination across all agencies. All agencies were reliant on the availability of telecommunications for coordination. *Telco* was on high alert and all critical teams were on call. One of these teams was in charge of going to the field to look after the clients, the distribution channels, and the employees on the ground, and another team was in charge of assessing and attending to the damages in their network. As these teams prepared to be deployed to the field, they received consistent reports from the operations team in the command center regarding the status of their network signals.

“They were tracking it and they could see it on the board”, explained *Dave (field personnel, Telco)* and he then continued to gesture an imaginary board and then draws with his hands some bubbles popping, *‘pluk! There goes one signal. Pluk! Another one. Pluk! We are losing it. Oh! Don’t get disconnected, Philippines!’* The telecommunications industry in the Philippines, including *Telco* as one of the bigger players in the country, was reported to have suffered about 2500 disabled cellular sites in the path of typhoon.

“They were not operational, and we had about four days to restore the critical areas, and then thirty days to restore everything else” – *Dave, field personnel (Telco)*

Eerily, *Troy* recalled that on Friday morning at 6am when the typhoon hit, they outrightly lost contact with the group of the Secretary of Defense. They did not know what was happening on the ground and *HQ* decided to send an assessment team. *Troy* was a part of the military operations, which they referred to as ‘J3’ in military jargon. There were a total of eight people on the initial team that boarded the plane, including high level

government officials from selected state ministries, as well as other military officials. The mission was for them to assess and give *HQ* a clearer picture of what was happening. When the team got there, *Troy's* team touched base with the Secretary of Defense, who then asked who the most senior officer was in their outfit. *Troy* said, '*I, sir.*' Right then and there, the Secretary of Defense appointed him incident commander for the airport on-the-spot. '*That was where it all started*', *Troy* recalled.

Stepping into the field after the disaster hit the Philippines initially provided a different working context for *HQ* and *Telco*. First, they came in abundant with necessary resources. Second, the members entering the field came in were not directly suffering material and immaterial losses from the typhoon. Indeed, most of them did not have direct familial ties in the area, and neither did they own properties in the area. Third, the scope of experience with responding to calamities for both organizations spans across various geographical areas of the Philippines over a period of time. For example, *HQ* has a direct function to serve and protect the people from both man-made and naturally caused threats. Their organizational experience in carrying out this function seems to give them a level of familiarity in navigating various forms of extreme events, including combats, earthquakes, typhoons, and other related disasters. Meanwhile, *Telco* is one of the key industry players in the country, which effectively makes them one of the backbone industry players in ensuring consistent availability of communications especially during times of calamities. They have a long-standing relationship with the government, and have had to be deployed in various forms of extreme events, albeit primarily of typhoons.



Upon entering the field, *HQ* was tasked to assess the situation, with an overall goal of restoring the routine functions of the province.

*“The bottom line was that [...] the faster we transition to other government agencies, the faster we can stabilize the situation.” – Troy, decision-maker (HQ)*

Meanwhile, the actions of *Telco* were directed towards ensuring business continuity amidst the damages to their network. As soon as their network became non-operational, all their actions were directed towards immediate restoration, while at the same time tapping some other assets to provide contingencies.

*“It is our obligation to subscribers to keep our network up and running and to maintain our subscribers’ connections especially in circumstances when they might need the communication the most. As before, our engineers were briefed and prepared to always be alert and to respond to any connectivity problem that should arise. [...] Communication is [our company’s] core business, and the senior management within the company recognizes the social utility they provide and the inherent public service component of their networks to connect people in crisis.” – From Telco’s case study report on Typhoon Haiyan (Doc 3.5)*

*There was already a standing order from the President that the telecommunications must be prioritized. Some of the more operative goals that they referred to was prepositioning relief goods for the employees and their respective families who were affected, and this was in line with the bigger goal of ensuring that the human resource power was accounted for. –Notes from the field (Doc 2.10)*

As both *HQ* and *Telco* were entering post-typhoon, the knowledge that there was damage waiting to be fixed was already established among members of both organizations. Unlike the case observations in *Case 1*, the organizations in *Case 2* set their expectations high in terms of the tempo and scope of work needed to achieve their goals. This was manifested in the way that the resources they bought with them (cash, basic

disaster kits, communications), the profile of the people entering the field (most of them with high representations and have previous experience), among others.

*“We already knew it [the typhoon] was coming. For something that big, we prepared even more.” – Jess, field personnel (HQ)*

However, the scene that welcomed both organizations shocked them. Even in the presence of resources, they found themselves in a position where their preparations were not always applicable within the context they were working in.

*“In that place, there were just too many. Thousands. You could see the dead. For example, I only arrived there some days after the hit, you could still see corpses around. There are still many unclaimed corpses, corpses that remained unmoved. We prepared this much (using one of his hand to approximate height), but Yolanda was this high (using his other hand to approximate a higher height). All of Leyte, all of them. They were walloped.” – Jess, field personnel (HQ)*

*“I had communications with me because they told us that comms was cut out, no satellite phones were available or anything. So I had the communication of hand [radio]. But when we got there, it really did not sink in to me what the extent of the damage was. [...] There, it was zero. It was like rebuilding society all over again.” – Troy, decision-maker (HQ)*

*“They brought with them spare equipment, satellite phones, and cash. But they found out that they would not be able to use it, least of all the cash because there was nothing there.” – Dave, field personnel (Telco)*

The mismatch in their expectations prompted the organizations to quickly reconsider their next steps. Unlike the immediate challenges of the case observations in *Case 1* of scarce resources, *Case 2* had the challenge of too much resources. While the expectation was that the organizational members would come in unaffected and therefore able to undertake their jobs with much less personal anxieties like those in *Case 1*, the organizational members who entered the field found themselves faced with

challenges that were emotional in nature. This posed some difficulties in undertaking their respective jobs.

*“How could you lighten their mood up, all the dead are scattered around. There were no standing trees, there was nothing. There were vehicles, but you could not start them. There was no gasoline. The rest are upside down. It was like... ground zero. Like they have been hit by a bomb. You are not happy, even you [as the worker], after work, you have to talk to others. You need to debrief. So we had stress debriefing, because everything was limited.*

*[...] In the military, we were in charge of the medical relief. All our doctors were affected. Even if you had only been there a day. They are also people. They would be affected. Some of them asked to go home because of some reason, but actually it was because they were already affected.” – Jess, field personnel (HQ)*

Among the other challenges that both case observations mentioned included logistics, turf wars, discontinuity of management personnel that organizations interface with, and the self-conservation of the field personnel.

*“Logistics really became our main problem. We are an archipelagic country. We needed access to watercraft, but we also needed air assets. We also had a problem with commercial fuel supply, because if there was no commercial power, we had to rely on our standby generators, which also needed fuel. So we had to ship fuel drums.” –Dave (Telco)*

*The reality for these types of emergency according to N5 is that the people on the ground are not the implementers. This is especially true for the big organizations. Ollie (decision-maker, Telco) also mentioned a few of their challenges, including the continuity of management personnel that they relate with in inter-organizational response operations – ‘the person you previously had an agreement with will likely not be the same person that you will relate with during the actual event.’ – Notes from interview with Ollie, Telco decision-maker (Doc 2.1)*

*“We slept in seating positions because we were embarrassed that the victims would see us sleeping while laid down. But I had to sleep because tomorrow, we will be up and about again. We have to conserve ourselves. So if it came out now that we needed to eat or sleep before the victims, I told my people to do so because I did not want it to reach to a point of [something like] Stockholm Syndrome where they might feel they are also victims. I emphasized that we could not afford this to happen. We had to pace ourselves – if you have to take time to eat, you eat. Forget about those looking at you because somebody is in charge of feeding them. It’s not you. I need you for another job, I need you to be strong, I need you to be healthy.” – Troy (HQ)*

All the challenges combined became something of a ‘*what now?*’ situation, which is also reminiscent of templates becoming ‘fantasy document’ (Kendra & Wachtendorf, 2002; Wachtendorf, 2004) or a precedent to ‘drop your tools’ situation (Weick, 1993). While both organizations were clear about the purpose for entering the field - it was not clear where to begin, what to prioritize, or what action to undertake. This affected the way in which organizational members are able to connect their actions to the established purpose for which the organization is there. The main dilemmas traversed around the inapplicability of resources and processes. Table 13 outlines the notes from the field regarding the constraints that each case observation faced.

Challenge	Example per Case Observation	Dilemma
Resource	<i>HQ</i> Immediate challenge/s: <ul style="list-style-type: none"> <li>- Transportation was not usable because the roads were not passable</li> <li>- Supplies for medical relief were either not useful or running out, and food and beverage provisions were easily depleted</li> <li>- Water provision, sanitation, and latrines were not available</li> </ul>	<i>Jess</i> was concerned about the mismatch of the resources they had to provide immediate medical relief. What they had was barely useful, or was continuously being depleted. – Interview notes (Doc 2.12)
	<i>Telco</i> Immediate challenge/s: <ul style="list-style-type: none"> <li>- Cash on hand could not be used</li> <li>- No land transportation could be mobilized at that time because of non-availability of commercial fuel</li> </ul>	Engineers needed to undertake critical procurement actions that warranted authority, but could not afford the time needed for the authorization  As regards transportation, existing air asset (chopper) was not compatible for cargo loading of equipment. – Interview notes (Doc 2.1, 2.10)
Process	<i>HQ</i> Immediate challenge/s: <ul style="list-style-type: none"> <li>- No clear model of action for managing the priorities at the airport grounds</li> </ul>	<i>Troy</i> had a moment of ‘ <i>okay, what do I do next?</i> ’ after he has been designated by the Secretary of Defense as Airport Ground Commander. There were many stakeholders to be taken into account,

Challenge	Example per Case Observation	Dilemma
	<ul style="list-style-type: none"> <li>- No order in the place, victims were coming in droves wanting to leave the place</li> <li>- Immobility of some victims outside of the airport area</li> <li>- Security and conservation of the teams entering the field</li> <li>- Turf wars among agencies</li> </ul>	and there were also instances when procedural rules were brought to his attention, but he deemed them inapplicable for the purpose of the organization. – Interview notes (Doc. 2.13)
	<p><i>Telco</i></p> <p>Immediate challenge/s:</p> <ul style="list-style-type: none"> <li>- Certain procedures exist for authorization of certain actions – which were difficult to communicate back to the headquarters in Manila because of non-availability of network</li> </ul>	The engineers needed to undertake critical procurement actions that warranted authority, but could not afford the time needed for the authorization – Notes from the field (Doc 2.1)

**Table 13: Case Observation – Immediate Challenges, Operative Goals, Resource and Procedural Constraints, and Dilemmas (notes from the field)**

In contrast to *Case 1* where the main concern in relation to resources was scarcity, the resource constraint in *Case 2* was more in relation to the mismatch or non-applicability of their existing assets. Like *Case 1*, the case observations in *Case 2* also experienced procedural constraints. However, the root of the constraint for *Case 2* arose not merely from a conflict with existing procedures and structures (e.g. *Telco*), but also from the very absence of a procedural template for managing the chaos (e.g. *HQ*). Prior to entering the field, both organizations had clear goals: *HQ* was set out to ensure fast response, relief provision, and transition to the local governments, while *Telco* was set out to ensure business continuity in the area. However, as they entered the field, they were also overcome by shock because of magnitude of the damage on site. In a way, the effects of this shock was almost comparable to *Case 1* in that it also took them away from their pre-established templates, and posed some dilemmas or related challenges in relation to

performing their respective jobs. Some concrete examples including the following (see Table 13 for summary):

1. On the fast and continuing depletion of the existing resources that they have on hand, it was not clear how to get certain resources from Manila to their respective location.

*“During that time, even though you had cash, you could not buy anything. So we had to look for something. We’ve had to think about creating a system of communicating our needs to Manila through the airplanes that come and go from the airport. We’d also send our list to those leaving Leyte, and then give them cash for the replacement of the basic resources we needed as a team.” – Jess, field personnel (HQ)*

2. On the resource mismatch where the existing assets they have on hand was not easily applicable for the current situation, the field personnel found themselves having to find a means to either make the resources useful (through recombination) or access other resources.

*“All resources are to support the engineering group to perform their function. So the air asset available during that time was an executive chopper. But they needed a cargo chopper. So the executive chopper needed to be converted into a cargo chopper! They removed the seats – they were leather (laughs)”. –Dave, field personnel (Telco)*

*“We’ve had to make a makeshift clinic. It had to be clean, it should not look like a disaster too. It had to be orderly, although you could not make it as orderly because you cannot lift the vehicles that flipped over. But it had to be clean.*

*[...] The status of our clinic was a bulding without a roof, I just covered it with tarpaulin or canvass from other countries [foreign aid workers] which we asked from them.” – Jess, field personnel (HQ)*

3. On the emerging necessity to undertake critical actions, these sometimes came at the cost of working around existing procedures.

*“There came a time when we had to use our personal funds. Cash became a problem. In the discussions with finance, basically from the approval process, we were looking at how to make it faster. [...] The normal process was to get authorization. But the normal process had to be cut short.” –Jess, field personnel (HQ)*

*“We had some relief goods, there were people lining up so we have to feed them. Give them food. Some other government agencies which I will not name anymore said, ‘sir, we should ask for ID from them [when they claim the relief goods]. We need to validate their identity. I said – these people lost everything in their lives. The ID is the last priority, the least that they would need. They said, ‘sir, we need it for record purposes.’ So I said, fine, I will sign that off.” – Troy, decision-maker (HQ)*

4. On being provided the highest authority to manage and direct all operations on the field, there was no clear model for what the priorities were supposed to be.

*“[...] when we got there, it really did not yet sink in to me what the extent of the damage was. When the SecDef told me I will be in charge of the airport, it was as if, ‘hey, fine, thank you – so what do I do now?’ When they left, what do I do?” – Troy, field personnel (HQ)*

### ***Phase 3: Deciding to stay in action and looking for ‘patterns’***

These considerations triggered a process of iterative sense-making among the organizational members, and sometimes threatened to affect their ability to perform their respective functions. In the data corpus, the tone among the various informants converged along the lines of not knowing what to do next. There was also some ambiguity on whether the actions they undertook were consciously connected with the overall goal of their respective organizations. Some actions were incidentally connected with the goal, while some were consciously undertaken to address a specific goal. One of the informants of *Telco* described the process as taking things as they come – and at that time, there was no connecting the dots. The outcomes were emergent and contingent upon previous actions. During the time of the disaster, how their actions led from one to another in

order to achieve their pre-established goals were not clear. There were no patterns, yet somehow they managed to get to respective end goals of their organizations.

Two years after Yolanda, the outcomes were reported publicly through media, case studies and organizational documents and these were well within their desired outcomes. *HQ* was able to transition to the local government, and *Telco* closed the command center at the end of 30 days and accounted for the availability of network. They managed it, and how they got there was a matter of reflection and piecing together what occurred. When asked to tell the story about how they got from one point to the other, *Troy* resorted to his technical knowledge and related it to the situation:

*"In Cynefin's Model of crisis management<sup>39</sup>, we were in the fourth quadrant. This was a chaotic situation, there are no patterns so you don't look for patterns. You could not solve a problem. You just have to manage it." –Troy, decision-maker (HQ)*

The stories proceeded to be told as they occurred, where references to certain goals loosely connected, but imminent. The next logical step was to explore and make sense of how the connections between actions and goals occurred.

## **B. Dissecting the Narrative: Imminent Connections between Action and Goals**

The narrative implies that each organization has specific mandates, which they draw their purpose from. In both instances, their official goals are embodied in official mandates and mission and vision statements, which in turn provide default roles for both organizations in specific contexts. For example, *HQ* is a designated government

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<sup>39</sup> He was referring to a conceptual framework popularized by Dave Snowden when he worked for IBM Global Services. The framework is also considered as "sense-making device". *Cynefinis* a Welsh word for habitat.



organization that is responsible for the protection of Filipinos from both man-made and natural threats to security. There is a very specific mandate for them to appropriate relief, establish peace and order, and help the local government in times of extreme events. Meanwhile, as an organization whose core business function is telecommunications, *Telco* embodies in its mission and vision statement the continuous provision of services that provide client-focused digital innovations. Corollary to this, the organization is also mandated by the Philippine government to prioritize the provision of connectivity especially during events of natural calamities.

***i. Drawing on Goals as Core Purposes for being on the Field***

Table 14 below provides a brief summary of the mission statements and mandates of each case observation.

<b>Case Observation</b>	<b>Official Goal</b>
<i>HQ</i>	'To protect the people and the state, to secure the sovereignty of the state and integrity of national territory' <sup>40</sup>
<i>Telco</i>	To provide client-focused digital innovations with respect to connectivity

**Table 14: Official Goals of Case Observations – based on secondary documents and field notes**

These goals become a guiding template for the more specific operations of each organization, especially in relation to extreme events. More specific to their mandates in relation to the onset of Super Typhoon Haiyan, each organization have their respective operative goals. For *HQ*, the operative goal was to first send a

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<sup>40</sup> Based on Section 3, Article II of the 1987 Philippine Constitution

team for assessment and maneuver their plan of action with more certainty. Meanwhile, for *Telco*, knowing that the cellular sites have started to become non-operational, their goal was to send in a team to provide alternative means of connectivity for their stakeholders, while simultaneously restoring the networks. These pre-established operative goals saw an evolution as soon as the organizations entered the field, which was largely a result of the shock that they experienced in relation to the magnitude of the damage. Table 15 provides a snapshot of the adjustments made in relation to the pre-established operative goals.

Case observation	Operative Goals prior to the Typhoon	Operative Goals Post-Typhoon
<i>HQ</i>	<ul style="list-style-type: none"> <li>• To send in the first team to assess the situation</li> <li>• Plan of action for providing fast response will be adjusted according to the assessment reports</li> <li>• To provide quick response and transition to the local government as fast as possible</li> </ul>	<ul style="list-style-type: none"> <li>• Varying operative goals depending on what is deemed priority</li> <li>• To provide quick response and transition to the local government as fast as possible</li> </ul>
<i>Telco</i>	<ul style="list-style-type: none"> <li>• To service the connectivity needs of the clients by alternative means of connectivity</li> <li>• To preposition relief goods for the employees who were victims of the typhoon</li> <li>• To restore the network</li> </ul>	<ul style="list-style-type: none"> <li>• To service the connectivity needs of the clients by alternative means of connectivity</li> <li>• To preposition relief goods for the employees who were victims of the typhoon</li> <li>• To find alternative means to restore the network</li> </ul>

Table 15: Operative Goals of Case Observations in *Case 2* – based on field notes, interviews, and secondary documents

The adjustments did not necessarily mean radical changes to the previous operative goals. Unlike in *Case 1* where the magnitude of the damage overwhelmed their capacity and preparations and therefore had to rethink their operative goals, the adjustments made in *Case 2* were still very much likeable to their previously established operative goals. The only difference is that they were faced with an additional layer of duties. As expounded by the informants, the operative goals remained the same, they just had to adjust in terms of the timing, the shortcuts, or additional tasks to get to the goal. Some concrete examples of these adjustments are enumerated below:

1. HQ initially aimed to send in an assessment team in order to provide certain approximations of the situation that can aid in the adjustments around their plan of action. However, as the first group came, there was no time for assessment anymore, and action was immediately warranted. This led *Troy* to be appointed as ground commander at the airport to immediately initiate the response mission. Prior to the typhoon, the operative goal was to assess and work out a plan. After the typhoon, the operative goal remained as is, only that *A* was assessing simultaneously as they were responding.
2. Meanwhile, the operative goal of Telco prior to the typhoon was to ensure business continuity, and provide contingencies for alternative connectivity in the event that the network becomes non-operational. When the network

became non-operational after the typhoon, the operative goals remained the same for the organization. However, additional operative goals had to be considered to substantiated the overall purpose for being there. For example, given that there was a mismatch between the resources that they brought in with them, the goal was to make sure that the existing resources can be recombined for their benefit, or otherwise find alternative means to access certain assets.

In *Case 2*, the evolution of the operative goals was incremental, with each adjustment closely resembling the previously established goals. At the same time, however, the operative goals in *Case 2* were not concretized as a final scenario. Unlike *Case 1*, where the organizations could concretize what the final operative goal should be based on the shock and challenges they faced, *Case 2* shows examples of organizations going with the flow, constantly adapting, and the final output would depend on whether they were already able to fulfill the very reason why they were in the field in the first place, which ultimately is tied to a more abstracted goal, i.e. their official goal.

*“Goal-setting basically was – I try to be as broad as possible. The primary goal was negotiated against the secondary. [...] The first day, the priority was to feed the people. The following day, the priority may not be feeding the people or giving them food or water. It may be bringing out the victims, then medically impaired. Another priority might be who would you send off first – children, the injured, the aged, pregnant mothers, women? The first week was basically a chaotic situation. What was the action? Anything, just do anything. On the second and third week, this could be characterized as a complex situation. The effort was capacitating other government agencies. On the third week, it was supporting them.” – Troy, decision-maker (HQ)*

*“The sooner you are able to restore your service, then the better for the business. Every day that there is no service translates to days without income. So the sooner you can help – and this is a very pragmatic point of view – the sooner you are able to help your subscribers stand up, then they will be able to use the service.” – Ollie, decision-maker (Telco)*

This frame of mind among both organizations affected the kind of actions they undertook in response to the typhoon. These ‘acts of adapting’ include both instances of improvisation and routine actions. Such actions are discussed in more details in the section that follows.

## ***ii. Improvising as a Means of Adapting***

The tempo of operations among both organizations doubled in speed as soon as they entered the field, to the extent that certain shortcuts in processes had to be undertaken. Indeed, as shown in the narrative, *HQ* did not have time to send the same team back to report on the assessment. Immediately, *Troy*, the most senior military officer in the group had to be deployed and mandated as ground commander to make sense of and provide some order in the situation. Meanwhile, *Telco* found itself disconnected from the authority procedures in the headquarters in Manila, and the organizational members on the ground had to work around certain procedures to achieve their purpose on the ground. In many instances for both case observations, the resources they brought in from the outside were at times not useful in the field, or are otherwise easily depleting.

Amidst this phase of what *Troy* termed as ‘*chaos*’, the data corpus shows a general frame of mind among both organizations to keep going. Indeed, there

was an emphasis for *HQ* on ‘*accomplishing the mission*’ and for *Telco* on ‘*helping the subscribers bounce back*’ in order to help the business bounce back. Both organizations dealt with dilemmas of both resource mismatch, resource depletion, procedural impediments, or otherwise the lack of pre-established procedures to put order in the chaos. This implied challenges for both organizations to achieve their purpose on the field, and in turn became a precedent to undertaking some forms of improvisation.

Both organizations undertook two main types of improvisation – resource and process improvisation. **Resource improvisation** was undertaken due to two things: resource inapplicability, or fast resource depletion. For example, when logistics and transportation became problematic for the deployment of materials to fix the network, as well as the provision of relief goods to the disconnected internal and external stakeholders of *Telco*, they had to convert the executive chopper of the organization into a cargo chopper.

Another example involves the experience of *HQ*, where they created of makeshift clinic among the military unit in charge of the victims, as well as the adjustments of capacity and use for available aircrafts to bring out the victims, and to deploy relief cargos.

*“We’ve had to create a makeshift clinic, it had to be clean, and it should not look like a disaster. It had to be orderly. [...] We need to show them sanitation. [...] The status of our makeshift clinic, since there was no roof, I just covered it with tarpaulin and canvass which we asked from other countries already inside. We also had to account for the sleeping area of my team [in the same space] because we would stay there too.” – Jess, field personnel (HQ)*

*“Loading plans of the C130 for example or the C17 of the US. C130 the US would say, they could carry 60 people – seated, every person had an assigned seat and*

*seatbelts are fastened. We told them, 'that's good, but our C130 can carry up to 180-200, sitting on the floor. We just need to get as many people out as we could. So eventually, they relented and said, okay fine, bring them aboard. The maximum capacity of their C17 was like 200, [but] the record that we loaded, I think if I am not mistaken was 672. [...] [Another example for other planes], the pilot told us when before leaving the headquarters – I think that was Japan or Guam, they called us and told us not to load more than 250 [for their bigger planes]- And we told them, ah, we loaded 672 in another one. So the headquarters said, okay fine, take in 400.' – Troy, decision-maker (HQ)*

Unlike in *Case 1*, **role improvisation** was not evident in *Case 2*. This could have been due to two things. First, the roles are well established and *Case 2* organizations entered already a few days after the typhoon happened. There was no need to compensate for the absence of one person with a specific duty because they brought in reinforcements. Second, it is also possible that undertaking a role that entails multi-tasking is already internalized in the job function of the field personnel. This was the case for *HQ*, where some members understood that their role as military respondents can also encompass related tasks beyond their main mission. This sometimes included the actual retrieval and identification of corpses in case they chanced upon those, or otherwise flagging the organization in charge of that.

*"In military for example, of course, you would walk around [to find the victims], of course you will also help with the retrieval of bodies, right? You also help with identification. Your role is not confined to providing medical relief if a victim comes to you." –Jess (HQ)*

This nature of their multi-tasking role, however, was confined within the limits that could still enable them to fully undertake their actual roles.

Meanwhile, examples of **process improvisation** surfaced strongly in the data corpus. Like in *Case 1*, this occurred in instances when the *Case 2*

organizations had to spontaneously work around existing process templates or otherwise create a completely new process to achieve a particular outcome. For example, *Telco* had to make shortcuts on its authorization processes when they found themselves disconnected from the headquarters but needing to undertake critical actions to accomplish their goal. One of the contexts in which this had occurred relates to the need to employ qualified locals on the spot to help with the restoration of the network. At that point, the field personnel started running out of cash, so they had to make some adjustments and tap various personal resources. Further to this, they had to make fast financial decisions in terms of procurement and expenditures. Since the paper trail would have taken too long to loop between the field and the headquarters, they had to resort to some form of authorization system by means of SMS<sup>41</sup>.

*“For example, we had to hire some locals to go up the tower to bring the equipment, as well as to help restore the network. At that time, we were already running out of cash. We did not expect it to be that bad. We had to make a lot of adjustments. Every person had to take money out of their pockets, given that they had cash. In the discussions in finance, basically the approval process, we had to review how to expedite the process. [...] The normal process, we had to cut it short. Basically, an email would suffice [at that time]. And then we would just regularize it. As long as there was a record. It can’t be that there is no record. Email or text [will do]. So the authority can be recognized by email or text. The authority levels are still there, it’s just that the documents that need to be vetted and signed, you can’t have them signed because you are not there physically. So during that time, all of those were waived. As long as there is proof that your respective boss approved it either through text or email.” –Dave, field personnel (Telco)*

This process improvisation later resulted in the formalization of an organizational-wide policy that provides guidelines on what to do in similar situations, which also includes the extension of authority by SMS or email.

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<sup>41</sup> Short message service



*“Those adjustments, they were formalized, and then we already have a document that’s going to be followed for similar situations.” – Dave, field personnel (Telco)*

Another set of examples are instances of process improvisation that occurred as a result of the absence of a pre-defined process. For example, the field personnel in charge of the relief operations in *HQ* had to broker a system that can allow them to access contingent resources that were easily depleted, as well as resources that were necessary to their duty.

*“[In relation to the creation of a makeshift clinic], the clinic, when it rained, it would really leak. You would have to step aside, and your materials would get soaked. The food, sometimes the team considered getting from there [the relief stash], but I said no. The thing is there, even if you had cash, you could not buy anything. So we had to look [for materials and food]. We created a system, that when an airplane would arrive, we would communicate ahead of time with the headquarters, or we would relay a list to them and ask them to buy for us. We would replace water, then ice. Eventually, it turned out well. We were able to buy a portable stovetop [to cook their own food and not rely on the relief stash], and everything else [needed was accounted for]. The system was created then and there, especially for my team. When I arrived, there was no system yet, because the people I replaced also had challenges and were shocked themselves. They had been on site three or four days when I arrived.” –Jess, field personnel (HQ)*

The most extreme form of process improvisation was undertaken by *Troy*, as mandated decision-maker of *HQ*. When he was appointed as ground commander on the spot, he was first confronted by a moment of ‘*now what?*’. Indeed, as he was narrating his story, he mentioned that he had to reflect for a moment

*“When the SecDef told me I will be in charge of the airport, it was as if ‘hey fine, thank you’... so what do I do?” - Troy (HQ)*

The main challenge was clear to him – there was no pattern, and everything was constantly changing. This became a takeoff point for him to improvise the

system as it went on. Especially during the first two weeks of the response phase, the actions he undertook were loosely connected with a very particular operative goal, especially because the operative goal was also being conceptualized as he was leading. This type of process improvisation entailed improvising not only to account for the absence of an applicable process, but also to account for operative goals (or in his words ‘priorities’ and/or ‘objectives’) that were constantly changing.

*“In a crisis situation, the faster you make the decision, the better. [...] This [was] a chaotic situation, there are no patterns so don’t look for a pattern. You could not solve a problem, you just have to manage it. [...] One action may not lead to another. Successfully accomplishing one particular task may not lead to another task to be accomplished. Sometimes, there will be no patterns. So it was adapting as you went on. Like today, your priority will be this, tomorrow it would be different. And while doing this, you may have to do some things simultaneously.*

*[...] The first week, [November] 9-16, it was basically a chaotic situation. Leadership style was crisis leadership. What was the action? Anything, just do anything. And after doing one thing, don’t expect that this would lead to another success – it may not be interrelated at all. Civil military agents, the military was leading. On the second and third week, this would be characterized as a complex situation. [...] Leadership was strategic. The effort was capacitating other government agencies.*

*On the third week, it was supporting them. Although on the third week, they would still say, ‘sir, please don’t leave us’. ‘No, we won’t leave you but we will push you to the front. We, on the other hand, we will be in the background, you should already be the front faces here.’ – Troy, decision-maker (HQ)*

There had also been instances when the result of this process improvisation would also conflict with existing processes. In which case, Troy (decision-maker, HQ) had to insist on carrying on according to his judgment.

*“It was a case of ‘I obey the rules only if I make them’. Because at that point in time, nothing was applicable. There were times that the diplomatic clearances were not yet available for the aircraft to land, or for the aircraft about to land. So I had to make the decision to bring the aircraft in, and I told them, we will sort out all clearances later on simply because what was on board were all relief goods*

*which were badly needed at that time. We also made a system that all aircraft with passage of victims, homeless, and others, we just had to send them out. Because they would be the most vulnerable in the event of a pandemic. [...]*

*On the first day, when we got in there, people started to come in droves. What can anyone do with 2500 to 3000 people in the airport? And then you would be able to fly them out via AFP and foreign aircraft to Cebu or Manila. But the number just became steady. If we did not send them out, they would just keep increasing.*

*[...] So like first day, what's the priority? We had some relief goods, there were people lining up so we have to feed them. Give them food. Some other government agencies asked for ID and asked that the names be listed. After they realize there were no IDs, they brought it up, 'sir, they don't have IDs to validate'. I said, what the heck, these people lost everything they have in their lives. The ID is the least priority, the least they would need. They said, 'sir, we need it for record purposes.' So I said, 'fine, I'll sign that off'. I think at the end of three weeks, I signed off a total of 800 sacks of relief goods, and there are about 1400 I think under my name. So if this would be missing, tell them I authorized you to give this away to the people." –Troy (HQ)*

Overall, the extent of process improvisation employed by Case 2 organizations occurred either out of the absence of an applicable template, or in the sense that that following the normal process was not compatible with the urgency of the situation.

### **C. Who Enacted Improvisation and to What Extent?**

In Case 2, the examples of improvisation were either enacted interpersonally or individually. Moreover, the degree of resource improvisation was minor, while process improvisation ranged from bounded to structural following the framework of Hadida et al. (2015). Table 16 below provides a snapshot of the examples of improvisation culled from the data corpus.

Act of Improvisation	Example	Level of Improvisation	Degree of Improvisation
<i>Resource Improvisation</i>	▪ Conversion of executive chopper into a cargo chopper ( <i>Telco</i> )	Interpersonal	Minor
	▪ Creation of makeshift clinic ( <i>HQ</i> )	Interpersonal (Jess, field personnel at HQ)	Bounded
	▪ Capacity adjustment of the available aircrafts ( <i>HQ; Telco</i> )	Interpersonal	Minor
<i>Role Improvisation</i>	<i>No examples found beyond multi-tasking</i>		
<i>Process Improvisation</i>	▪ Shortcutting the authorization process for procurement and other critical actions ( <i>Telco</i> )	Interpersonal	Bounded
	▪ Brokering a system to access contingent resources ( <i>HQ</i> )	Individual	Bounded
	▪ Relief system and operative goal-setting on ground zero ( <i>HQ</i> )	Individual	Structural

**Table 16: Examples of Improvisation in Case 2 and their respective Form Attributes**

All these examples of improvisation occurred as a result of three antecedents: first, the tempo of the operations instilled a mindset of ‘*urgent action*’ among the organizational members; second, the inapplicability or otherwise the fast depletion of existing resources; and third, the difficulty of modeling the scenario, which in surfaced the inexistence or otherwise inapplicability of templates for managing the situation on the ground. Each act of improvisation that was undertaken to respond to these antecedents were enacted in varying levels and degrees.

Resource improvisation, for example, was in most part undertaken collectively among the team members. The data corpus does not show unique instances wherein an

individual organizational member actively led a resource improvisation. Instead, using improvisation was conceptualized collectively as a solution among various members of the team. For example, when asked how *Telco* came to the decision of transforming the executive chopper into a cargo chopper, *Dave (Telco)* mentioned that it was a result of conversations among the teams – emphasizing that *‘it was already between the logistics and the engineering group, they sorted it out’*. There was only one example where *Jess (HQ)* mentions that while the makeshift clinic was a solution collectively undertaken, he initiated the idea.

As regards the degree of resource improvisation, two examples were considered minor, while one is considered bounded. On the one hand, both the conversion of the executive chopper into a cargo chopper by *Telco* and the adjustment of loading capacity of the aircrafts by *HQ* are considered minor. Indeed, the adjustments that were made to the loading capacity of both the chopper and the plane did not alter the actual purpose they serve. Both the chopper and the planes were used in their capacity for transporting relief goods and people via air. On the other hand, the creation of the makeshift clinic is considered bounded. As shown in the narrative, *HQ* arrived on a field characterized by chaos. There was constraint on space, because the hospitals were no longer standing. The members of the military unit of *HQ* who were tasked to provide medical relief had to find an empty space amidst the debris-laden area and build something that resembles a clinic using different scrap materials, e.g. tarps as roof, various types of dividers as wall or space marker, among others.

In relation to the examples of process improvisation, they were mostly pursued at the level of the individual, with the exemption of one, i.e. the shortcutting of processes by *Telco*, which was instead undertaken and negotiated collectively among various personnel on the field in conjunction with their respective supervisors or unit heads, who in turn, brought it to the level of the institutional heads. On a related note, this process improvisation is considered to have occurred at a degree that is bounded, for the reason that the act of cutting short the authorization process via electronic/digital means has not previously been practiced in the organization, despite the organization's past experience of partaking in the response efforts for big calamities or emergencies. For example, *Telco* refers to the 'history' of the organization in dealing with calamities and accidents, including its 'first experience with disaster when a plane crashed in an isolated part of the country in 1998', the 2009 Typhoon Ketsana, and other types of calamities like earthquakes and flooding among others. With a long history of involvement in response phase in various types of emergencies, there had been no formalized or institutionalized guideline for the contingencies on authorization process for critical action. This authorization process, which was later on formalized at the level of the organization, was a novel process pursued within existing structures of the organization.

All the other examples of process improvisation, e.g. the brokering of a system to access resources by *HQ*, as well as improvising the relief system and the operative goal-setting by *HQ* were enacted at the level of the individual. The brokering of the system was pursued by *Jess*, one of the military officers, within the unit in charge of medical relief, who also had the highest representation within their team. He explains, for example, that

his authority helped the coordination, communication, and inevitably the negotiation with various officers with different turfs in creating a system for medical relief.

*"I explained to my commanding general prior to going on the field, 'sir, I think they might have a difficult time because the coordination on the field is done between high authorities. If they are junior, they might have some difficulties. Although the highest in the unit [at the time prior to his deployment on the field] is a major, he is also a senior, but I think you need higher. Maybe I need to go, sir.' So he allowed me and on the next team, I was already among those deployed.*

*[... when I was already on the field], the main commanding chief there was the captain of the navy, Coronel Troy. He is my friend and he's younger than me, I was his senior [but he was the decision-maker on the field at that time]. Our coordination was beautiful, he was the head of the military there. He was the one on the ground really. If he was commanding the ground, I was commanding the medical relief. So we were helping each other, if my people needed help, I would coordinate with him. There had to be someone representing our unit. It cannot be kapricho [it cannot be just anybody with a low position]. So one time I asked for blankets, he let me in on his access. I mean if it were lower rank officers there, maybe they would think they could not coordinate with the seniors. That's the thing about the disaster, when the magnitude is like that, the seniors talk to one another." – Jess, field personnel (HQ)*

At the same time, the degree of this improvisation is considered bounded because the act of brokering a system to access certain resources was pursued within the structures of the organization. In this situation, it was pursued within the structure that is represented by various senior officers who are able to coordinate with one another and mobilize an action.

The last example of process improvisation, i.e. improvising a relief system and the setting of operative goals, was enacted at the individual level, and is considered structural insofar as the degree is concerned. It is individual because *Troy (HQ)*, upon presentation of mandate and delegation of authority by the Secretary of Defense, automatically became the 'point-person' or 'go-to person' for organizational directions. As a part of a lean team that first entered the site, and being the most senior authority on the field, people relied on him for order or purpose, i.e. 'what do we do now?'. As a result, the system he

established alongside the identification and prioritization of various operative goals were initially enacted by him, as an individual member of the organization. As regards degree, this example can be argued to be structural mainly because various units on the field which fall under the *HQ*, as well as other attached and independent organizations, relied on the system he created and were oriented towards the operative goals he set. In the end, the units of the military organization operating in the same site, alongside other organizations converged towards the achievement of the goals that *Troy* set day in and day out.

All three examples of process improvisation exhibited some facets of both rule-creation and rule-bending. The shortcutting of the authorization process by *Telco*, for example, was rule-bending in principle, as it was working around the routine process that they otherwise had, and they had to make an exemption during Typhoon Yolanda. Meanwhile, *HQ*'s brokerage of the system to access resources was rule-creation, precisely because there was no template for the said situation, and the output of the act, i.e. the system they brokered, was not enacted at the expense of or in conflict with any formal regulation or structure. The final example where *HQ* improvised the relief system and the goal-setting of operative goals was, at the onset, rule-creating. As emphasized by *Troy*, *'there it was zero. It was starting all over again.'* Indeed, the individual organizational member was creating a whole new system, which entailed the setting of and the prioritization of various goals. However, as various rules were being created, the output sometimes inevitably came in conflict with certain regulations or norms. As an example, this was evident in the narrative when as a result of the goal to provide immediate basic



relief to the victims, some government officers following the orders of the ground commander hesitated because it was not aligned with the normal practices of the government where an ID is provided in exchanged for the distribution of the goods. This goal was a part of the overall system conceptualized to guide the actions of the relief providers, but sometimes the system coincides unintentionally with existing regulations and routines of the organization itself, or in this case, the organizations that are operating under the coordination and directions of the ground commander.

All these examples of improvisation, i.e. resource and process, also surfaced key enablers, i.e. what made you do that? There are attributes at the level of the individual, and attributes at the level of the organization that reinforced the actors to undertake improvisation. These are discussed in detail in the following section.

#### **D. Individual and Collective Attributes at Play**

When asked ‘what made you think of resorting to that kind of action’, or ‘how did you come to undertaking that action’ in relation to the acts of improvisation exhibited by the organizational members, the informants referred to various factors that are attributable to either collective characteristic of the organization, or their own individual characteristic.

At the collective level, the data corpus for *Case 2* exhibits the recurrence of three attributes, i.e. organizational structure, organizational process, and organizational culture or organizational ‘upbringing’. Another group of collective attributes that surfaced from the data corpus are those which have aided, albeit minimally, the act of improvisation –

and this consists of 'network access', 'organizational knowledge' and 'organizational experience'.

Meanwhile, individual-level attributes were also evident in the data corpus. These include individual knowledge, individual skill, and personal traits, which became a category that denotes individual sense-making and reflection in relation to their personal values. Each of these attributes are explored in detail in the following section.

#### ***iv. Attributes at the Organizational Domain***

Three of the five attributes coded at the collective domain had a recurrent emergence from the data corpus, and these include organizational structure, organizational process, and organizational culture/upbringing.

As regards **organizational structure**, there was a common tone between the two organizations on how it has shaped the actions they undertook while on the ground. Note that organizational structure is defined in the literature as a form of organizational control, which includes delegation of tasks, coordination, and supervision in order to harness organizational efforts towards specific organizational objectives (see Chapter 2). *HQ* and *Telco* each have unique forms of organizational control.

On the one hand, *HQ* functions according to authority and seniority. Whoever is mandated a certain authority will be followed. Meanwhile, in the absence of formal mandates, the structure of controls will be contingent on seniority, i.e. whoever is most senior in the group will set the direction of the group. This kind of dynamics was evident when the first military group boarded the plane to conduct an

initial assessment on the ground. *Troy (decision-maker, HQ)* was aboard the plane alongside other military officers, and some senior cabinet members of the government including the Secretary of Defense and the Secretary of the Social Welfare Development. In that group, no formal mandates were present yet beyond their mission to assess, but as soon as they reached the field and the Secretary of Defense realized that there was no time to assess, his first question among the military members was *'who is the most senior here?'*, and when *Troy* identified himself, he was then provided the mandate to be in command of the airport area. A few days after he was given the mandate, other members of the military, including *Jess (field personnel, HQ)*, who was more senior than *Troy (decision-maker, HQ)* by rank, arrived on site. Since the mandates were already provided by the institution (in this case represented by the Secretary of Defense), the actions and decisions of *Troy* set the pace for other organizational members. *Jess*, for example, emphasized his seniority to *Troy* by rank and by batch, but also said that there was a conscious orientation of his actions and coordination with *Troy*.

*"In our organization, I think this is one of the best machineries that worked. It helped really that there was structure."* –*Jess, field personnel (HQ)*

Meanwhile, in *Telco*, their form of controls is derived not from seniority, but within authorities in their respective units. During the time of Yolanda, a business continuity group, which is envisioned to be the central authority responsible for the overall management of the organization in relation to disasters and emergencies, was not yet in place. On that note, responsibility and accountability during the

typhoon was spread across various units including engineering, logistics, and sales, but most of the efforts are largely concentrated in the public affairs department.

“Core responsibilities for [Telco]’s disaster preparedness and response programme lies within the [organization]’s Corporate Social Responsibility Department. The head of the programme is supported by a senior community partnerships manager and the broader Public Affairs department.” – *From secondary document (Doc. 3.5)*

This kind of set up is also said to foster an easier coordination and decision-making process amongst the groups involved.

*Reference was made broadly on the flatness of the organizational structure in relation to the decision-making. Ollie referred to this as having ‘less red tape’. – Notes from the field during interview with Ollie (Telco) (Doc 2.1)*

Insofar as authority is concerned, *Telco* describes some form of devolution of authority to the members of their organization on the field during emergency situations.

“*Telco* provides its field personnel ‘the authority to decide what is best’. For example, *Dave* have the anecdote when the executive chopper was converted into a cargo chopper. He mentioned that this was the call of the engineering group, and ‘even without the authority’ they would have done it. And they would be commended for doing so”. – Notes from the field (Doc 2.10)

The exhibitions of organizational structure among the two case observations in *Case 2* are different in nature. On the one hand, the organizational structure of *HQ* relies on a hierarchical control based on seniority and authority by formal mandate. On the other hand, the organizational structure of *Telco* relies on the hierarchical control based on internal authority structures within their respective departments (e.g. engineering, public affairs, logistics, etc.). More importantly, as soon as organizational members of *Telco* are deployed on the field, the authority structures within any specific group shift in favor of those who are on the field.

Despite these two different manifestations of organizational structure, they converge in enabling improvisation by means of providing ‘improvisational rights’. In both case observations, the act of devolving power is strongly demonstrated. In *HQ*, this was apparent when *Troy* was given the formal mandate. In *Telco*, this was apparent when *Ollie (VP)* and *Dave* mentioned the authorities they provide to the people on the field in relation to undertaking actions and decisions that they deem important for achieving their respective organizational goals. On that note, organizational structure enabled improvisation in a way that it provides improvisational rights, which in turn justified the actions of those who improvised.

For example, when *Troy (decision-maker, HQ)* started resorting to process improvisation in relation to the relief system and the operative goal-setting, he felt he was in the position to do so because he knew his mandate.

*“Know your mandate. Why? [Because the] military are very particular about the chain of command – but the chain of command may not resist. When everyone is in charge, no one is in charge. There should only be one voice. [...] The mandate is very important – that was where the SecDef told me, ‘you’re in charge. You’re the commander for all the ground in the airport. That’s the mandate, that’s all inclusive. [People who are above you and would question you] will always be there, but you have to be able to stand firm and say, ‘this is what should be done because I have authority from the SecDef’.” –Troy, decision-maker (HQ)*

This was also reinforced by *Jess* when he explained how the authority was important to get things done, which is related to the process improvisation he undertook to broker a system that allows him to access the resources necessary for the relief operations that his unit was leading. He mentioned that if junior officers were around, it would have been more difficult for them to get things done, due in

part to the fact that they might not feel that they are given the opportunity to bend some rules where necessary.

“We also want our work to be more efficient. For a soldier, if you tell him ‘okay, do not allow anybody to go through this door, that’s an order’ – for that soldier, if that is an order, to be effective, he will not allow anybody to go through. But if the hospital is just on the other side of the door he was protecting, and there was an emergency and somebody asked him to pass. The soldier will argue, ‘no you are not allowed, because it was an order from my boss’. That is not efficiency. You have to let him in – just make sure you also check that the passage is safe. Sometimes the rules have to be bent – and sometimes you need some authority and experience to bend such rules. [...] Of course, if the juniors and the younger ones are talking to one another, they might think that it is better to follow the orders of the more senior members of the group. And that’s the thing about disasters, the more senior members are really the ones talking to one another.” – *Jess, field personnel (HQ)*

Finally, *Telco* also exhibited how organizational structure enabled improvisation via provision of improvisational rights – mostly through the resource improvisation undertaken to convert the executive chopper into a cargo chopper. When asked if this was reported first to the headquarters, *Dave (HQ)* mentioned that it was a decision collectively arrived at by the two groups on the field, between the logistics and the engineering.

“It was their call – they were on the field, they knew what to do.” – *Dave, field personnel (Telco)*

Indeed, organizational structure enabled the occurrence of improvisation in that it provides ‘improvisational rights’ that made it possible for the organizational members to justify the actions they undertake in response to the typhoon.

Another type of attribute at the collective level found recurrently in the data corpus is that of **organizational process**. As previously expounded on in Chapter 2,

organizational process is defined as a systematic and logical procedure for undertaking actions in relation to achieving specific organizational outcomes. Following this definition, the data corpus exhibits various manifestations of organizational process in *Case 2*. Particularly, both case observations have very succinct processes in place in preparation for emergencies, including templates for action during the days leading to the incident. Some of the more highlighted processes in place include those in relation to communication, contingencies, and decision-making. For example, *Telco* has an established system that informs their employees regarding impending emergencies. Likewise, there is a system in place to mark safety of the employee to ensure that all the employees are accounted for in emergencies. There is also a system in place that already attributes responsibilities to various people, to make sure that key personnel are available to render service in case they are needed.

*“We have a command center in Manila. [...] The command center [is] where the management convenes in preparation for and during the height of the calamity, and it is located somewhere in Manila. 24/7 – we were on call. As we monitor the status of our network, we already have identified people on call. They already know what to do.” –Dave, field personnel (Telco)*

Meanwhile, *HQ* also has a process in relation to which units should be in charge of responding to certain geographical areas.

*“[HQ] has different unified commands. What we did is, if this area will be hit (pointing to a certain place on the Philippine maps), central command will respond.” –Troy (HQ)*

Interestingly, the data corpus provides a lot of information regarding the processes prior to the typhoon. This is true for both case observations – when asked about the process for managing emergencies, or specific procedures in place for

response efforts, most of the information provided are heavily leaning towards describing the process prior to a typhoon. However, the closer the typhoon was to hitting the ground, and as soon as the typhoon arrived, processes became more obscured and arbitrary, and to some extent, a formal process template for decision-making and communicating also became intangible. It was intangible in the sense that there were no clear rules about what system to follow, yet somehow, the actions of the organization still exhibited a semblance of systematic and logical procedures that were not necessarily institutionalized or carved in a template. An example of this includes *HQ's* process improvisation of a relief system and operative goal-setting on ground zero. When *Troy (HQ)* explained how he had to identify priorities, and create some system for providing relief, he emphasized that his actions were generally conforming with the Cynefin's Framework, which helped him make sense of what actions needed to be undertaken given the context he was operating in. Likewise, *Troy (HQ)* also resorted to various '*signals*' at the organizational level, which could help provide a systematic and logical process for managing the situation on the ground. These '*signals*' pertain to different processes and norms that are acknowledged at the organizational level, and they include the actual role of the organization on the field, the goal of the organization in the field, as well as the various processes in the past in which the military found itself in a situation similar to this one. These signals served as building blocks for improvising an entire process on the field while at the same time providing some sense of logical procedure for managing the typhoon for *Troy (HQ)*.



Another example includes that of *Telco* providing elaborate details on the preparation processes prior to the typhoon. These preparation and response processes are in place, but the organization also provides some leeway for the organizational members to be flexible around the process. This is especially applied for those who are on the field. *Ollie (decision-maker, Telco)* emphasizes the importance of removing ‘process thinking’ when they are already on the field:

*Telco emphasized that their organization allows for flexibility and devolves authority to the people on the field. This is done by getting the right people and building a ‘culture of empowered’ employees. Ollie mentioned that this accounts for less red tape in decision-making, especially because in disasters, they have ‘no luxury of having to ask people’. [... To this end,] the engineers are allowed to make a call as to what they deem appropriate. This is considered to be ‘one of the strengths’ of the organization because they hire independent thinkers – which then removes ‘process thinking’.” – Notes from the field during interview with Ollie (decision-maker, Telco) (Doc 2.1)*

*“[As regards] balancing central leadership with flexible and decentralized decision-making, autonomy to make critical decisions in the midst of disaster situations is important to ensure that activities and actions are appropriate to the circumstances.” –From the case study report on Telco (Doc 3.5)*

In both case observations, the arbitrary nature of organizational process during the response phase in disaster events seems to be purposeful in order to favor flexible approaches. To this end, such arbitrary nature of process during the response phase in disaster environments became an antecedent for process improvisation. Moreover, a disaster as extreme as super typhoon Haiyan, which was unprecedented in terms of magnitude for both case observations, pushed both organizations not just to recount what processes from previous experience may be applicable and replicated, but also to consider completely new solutions. In more ways than one, the absence of a previously tested organizational process for

managing the typhoon became an enabler for improvisation. Such improvisation resulted in new solutions (i.e. processes) that are built on the basis of various organizational signals, e.g. role of the organization in the context, solutions from previous experience that may be useful for the organization, and the ultimate goal of the organization. These signals became bits and pieces that helped frame a logical approach to improvising during the typhoon.

There was also an instance wherein a specific aspect of the organizational process, e.g. authorization process in *Telco*, was conflicting with the organization's objective to expedite the process of restoring the network on the field. They needed to make fast decisions, yet they also needed the authorization to undertake critical actions, e.g. procurement of certain resources or shelling out cash to pay the local volunteers for the service they render in helping re-establish the network. On this note, there was a clear conflict of the existing process with the goal of the organization, which in turn became an antecedent for improvising an alternative process, e.g. digital authorization process either via email or SMS. To this end, organizational process, particularly those that are perceived to be in conflict with current goals of the organization, enabled improvisation. This is reminiscent of the same role that organizational process played in *Case 1*.

Another aspect of organizational process in eliciting a type of improvisation relates to the emergent role of individual positionality. The data corpus often surfaced that the way in which organizational process enabled improvisation was also often contingent upon the position of the person exercising them.

Improvisations emanating from the absence of organizational process, or otherwise from the arbitrary nature of the organizational process, were often practiced by every organizational member who was deployed on the field. In a way, improvising because a process did not previously exist, or improvising because of a need to be flexible around arbitrary processes, were practiced precisely because it was expected of anybody who goes to the field – regardless if they represent a particular authority by formal mandate (e.g. ground commander), or whether they are there as a part of a group in charge of response phase, (e.g. field personnel from engineering, logistics, or public affairs group).

On the other hand, improvisations emanating from conflicts of existing organizational processes with the respective goals of the organizations were often practiced by organizational members with a particular authority, or otherwise a clout and close relations with the decision-making and institutional levels of the organization. These types of improvisation are often rule-breaking, and they often necessitated some form of justification, which are more likely to be acknowledged if it came from an individual that has some clout. This was the case when *Troy (HQ)* found himself in conflicting positions with existing processes of other government agencies in relation to the distribution of the relief:

“It was a case of ‘I obey the rules if I make them’ – because at that point in time, nothing was applicable. [...] I told them that we will sort out the clearances later on because what was on board [the plane that was about to enter] were all the relief goods which were badly needed at that time. [...] I think at the end of three weeks, I signed off a total of 800 sacks of relief goods, and around 1400 I think were under my name.” – *Troy, decision-maker (HQ)*

The same was the case for *Telco* having to still follow the authorization process, even though they improvised around the manner in which authorization is provided. Instead of physically sourcing the authorization and subjecting it to various levels of authority within the group, authorization was obtained electronically through email or SMS by the engineers and other deployed organizational members from various units of *Telco*. Indeed, *Dave (Telco)* emphasized that while they allowed for shortcutting the authorization process, the authority was still present.

*“It applies- the authority can be recognized by email or text. But the authority levels are still there, it’s just that the documents that need to be signed need not be signed because you are not there physically. During that time, all of those were waived. And then we regularize [as soon as we return to the headquarters]. As long as you have proof that it was approved by your boss, either through text or email, as long as you can show it.” – Dave, field personnel (Telco)*

In the end, the data corpus on *Case 2* demonstrates that organizational process enables improvisation in two ways: first, the absence or otherwise arbitrary nature of organizational process helps improvisation take place in that it serves as a signal for new solutions to be considered; and second, conflict in existing processes helps improvisation take place in that it serves as a template.

Another attribute at the collective level which surfaced from the data corpus is **organizational culture**. As previously discussed (see chapters 2 and 6), organizational culture is referred to in the literature on improvisation as an enabling factor. More specifically, the more experimental the organizational culture is, the more likely improvisation can occur (M. P. Cunha et al., 1999). Unlike in *Case 1*, where culture was represented from a very general perspective of the societal norms within their respective communities, the case observations in *Case 2*

demonstrate elaborately how culture at the organizational level shaped their actions in resorting to improvisation.

One example is *HQ's* emphasis on culture of 'unconventionality', especially for particular units that are frequently engaged in combat and extreme situations. *Troy* and *Jess* emphasize the importance of adaptability and of unconventionality, which are both espoused deeply in their organization through their operational routines during combat, as well as through formal trainings and education. To this end, *Troy* expounds on their 'organizational upbringing':

"Having been trained with Navy Special Warfare, we have learned to adapt and to be unconventional. We have a saying, 'no plan survives first contact with the enemy'. I would say that no plan survives first contact with the calamity. Because plans were made in the most ideal effectuations. So if you are somebody who likes to stick with a plan, but you know that when reality strikes, the plan is just as good as a piece of garbage paper, forget the plan, and make a new one. That's why I told you, I obey the rules so long as I make them. That's the extreme innovate[ion]." –*Troy, decision-maker (HQ)*

In this instance, *Troy's* frame of mind was oriented towards finding innovative solutions to managing the disaster. He attributes this frame of mind to what he considers his organization to be espousing for and expecting from his unit.

The same observation is found in *Telco*, where they emphasize the importance of organizational culture with respect to how employees are treated insofar as decision-making, independent thinking, and empowerment are concerned. When asked how the organization responds to certain actions that may have entailed rule-bending or otherwise abandonment of existing plans to give way to new solutions during the response phase of the typhoon, *Ollie (Telco)* referred to the '*culture of the organization*', which is also heavily tied to 'hiring the right people'.

*Ollie mentions that the engineers [and other organizational members] are allowed to make a call as to what they deem appropriate. The teams 'were not boxed in'. – Notes from the field during interview with Ollie, decision-maker (Doc 2.1)*

*"See, even if they do not have explicit authority, it has already been a common practice in Telco – if you are on the field and you can do something about it, you do something about it." –Dave, field personnel (Telco)*

To this end, organizational culture is one of the recurring collective level content attributes that enabled some form of improvisation. It helped the organizations improvise in the sense that there was an organization-wide acknowledgement, manifested through 'common practices' and active espousal and advocacy, of 'unconventionality', 'empowerment to decide', 'adaptability', and 'independent thinking'.

Two other collective level attributes, **organizational knowledge** and **access to resources through networks**, also emerged from the data corpus, albeit minimally. First, organizational knowledge manifested itself through collective prior experience of each organization in managing disasters. Both case observations referred to their common organizational knowledge as one of the factors that also shaped their actions during the typhoon. Although the data corpus does not provide specific illustrations that specifically show how knowledge helped shape a specific example of improvisation, each case observation nevertheless considered this attribute important in guiding the way that they undertook specific actions. For example, *Dave (Telco)* mentions their organization's collective experience of a typhoon, which makes every aspect of their response operations personal to the organization:

*“Our company has a personal experience during Typhoon Ketsana [in 2009]<sup>42</sup>. I think the company psyche took it personally, not only because we have [had] to rescue 200 of our employees from rooftops – I mean that was common. We really mobilized the assets of our company to be able to provide service among the employees who were victimized by that typhoon. But more than that, one of our founders died because of that typhoon.” –Dave, field personnel (HQ)*

Likewise, *HQ* also mentions that organizational knowledge as helping them come up with various solutions that may be appropriate for the situation they are faced with. For example, *Troy (decision-maker, HQ)* refers to the previous experience in dealing with calamities, as this is inevitably part of their function. To this end, tapping on previous organizational experience of calamities helped them narrow down which of the said calamities resembled closest to the current super typhoon that they were managing. *Troy (decision-maker, HQ)* mentioned the earthquake that occurred in Baguio (north of the Philippines) in 1990 – and mentioned that some aspects of that calamity guided the way in which they enacted their response operations, including acts of improvisation.

Finally, **assets and resources accessed through networks** also emerged from the data corpus as having motivated the organizations to undertake improvisation. While the data corpus does not show concrete examples which demonstrate the active role that this attribute played in enabling improvisation, each case observation mentions it as important in motivating them to come up with solutions. Particularly, they mentioned that it helps to know that they have access to resources and assets through their networks, which broadened the roster of solutions that

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<sup>42</sup> Typhoon Ondoy (international name: Typhoon Ketsana) was a tropical depression that hit most parts of Metro Manila on 24-27 September 2009. This affected 4,901,234 persons across 2,018 Barangays (villages), with an estimated cost of damage to infrastructure and agriculture amounting to 11Billion Pesos (National Disaster Coordinating Council, 2009)

could be employed in responding to the disaster. This, for instance, made it easier for them to consider resource improvisation, e.g. creating a makeshift clinic, or adjusting the capacity and repurposing the air assets of *HQ* and *Telco*, because they knew that they had access to parts and pieces of resources that were necessary to undertake resource improvisation in the first place.

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Summarizing the content attributes at the collective level for *Case 2*, the following salient points are put forth:

The first main observation is that organizational structure, organizational process, organizational culture, organizational knowledge and assets and resources accessed through networks are content attributes that surfaced from the data corpus. Of these attributes, the first three, i.e. organizational structure, organizational process, and organizational culture, are represented in the data corpus as having provided concrete illustrations where they enable or shape the occurrence of improvisation.

On the one hand, organizational structure enabled improvisation, especially process improvisation, through the provision of the *Weickian* concept of 'improvisational rights' (Weick, 1998).

On the other hand, the role of organizational process as an enabler is seen through two varying perspectives. Firstly, where organizational process templates for decision-making or authorization procedures etc. are in conflict with the current operative goals of the organization, the template serves the purpose as an initial



guideline (or script) for which the improvisation is based on. Much like in *Case 1*, process templates provide a guiding framework or a guiding script for undertaking improvisation.

Secondly, where process templates for response operations in disaster environments are arbitrary, or otherwise non-existent, in the organization, it enables improvisation in the sense that it signals the necessity to spontaneously create a process that is appropriate for the situation they are faced with.

Organizational culture, meanwhile, enables improvisation in the sense that the culture espoused by the organization predisposes the organizational members to a frame of mind that is oriented towards action, and finding solutions that are innovative and unconventional. Oftentimes, these kinds of solutions imply improvisation, and given that the organizational members nurtures a culture of 'not being boxed in', 'empowered', and 'unconventional', it can be argued that culture enables improvisation by providing some sense of validation.

On a related note, the last two attributes defined, i.e. organizational knowledge, as well as assets and resources accessed through networks, can be argued to be playing a corollary role to enabling improvisation. This is the case because the data corpus does not provide sufficient anecdotes in which they are directly referred to as having shaped a specific example of improvisation. At best, the data corpus shows that organizational members refer to these two attributes as having provided an extra motivation for them to resort to improvisation, i.e. resource improvisation, as a creative solution for managing the situation.

The second main observation is that some attributes, particularly organizational structure and organizational process, surface the contingent role of the individual. Specifically, the extent to which improvisation is enabled by process and structure is observed to have been enacted by individuals with distinct characteristics in relation to his/her positionality, authority, and a culmination of other attributes at the individual level.

The following section thus turns into a discussion of individual level attributes that are observed to have propelled or enabled specific examples of improvisation.

#### ***v. Attributes at the Individual Domain***

Various individual attributes emerged from the data corpus in *Case 2*, and these include individual knowledge, individual skill, as well as personal traits.

Consistent with the conceptualization of knowledge across this dissertation (see Chapters 2), it is defined as an embodiment of individual awareness of specific and general task domains, which are oftentimes a result of previous individual experience and training. Both *HQ* and *Telco* referred to knowledge as having shaped the actions of the people on the ground. More specifically, they mention ‘training’ and ‘previous experience’. During the exploratory meeting with *Troy (HQ)*, he started his narrative with an account of his background, previous training, as well as his trainings. He emphasized that knowing this is key to understand why he responded to the typhoon the way he did.

*“I gave you a background [a while ago]. So you will understand the way I think and operate. [...] What do I mean? Having been trained with Navy Special Warfare, we*

*have learned to adapt and to be unconventional. We have a saying, no plan survives first contact with the enemy. I would say no plan survives first contact with the calamity – because plans were made in the most ideal effectuations.” – Troy, decision-maker (HQ)*

The same was true for Jess (HQ) fielded in the disaster for the medical relief. Knowledge became a foundational block for him to consider various solutions in order to lead his group towards achieving the objectives they had on the ground. A succinct anecdote in relation to this was the way in which he tapped his personal experience to reduce the logistical bottlenecks to providing medical relief to the victims who were not immediately reachable. During his tour in the field, he realized that many of the victims were immobile and were scattered across various parts of the region. Meanwhile, their group and many responders were centrally located in the airport area. Getting to the victims outside the airport area was a challenge because there was either no transportation available, or the roads were not yet cleared. Acknowledging that if the responders resorted to going on foot, it would have taken more time, so he thought of a solution that later came to be known as ‘Bike for Yolanda’. Owing in part to his personal experience of cycling, he came up with this cause, which in turn became a part of the process improvisation he undertook to broker a system to access various resources.

*“Transportation was also a challenge, because you really do not have transportation. And even if there were a lot of vehicles you could commander, there was no gasoline. After a while, army help came in. We eventually had to spread out – so I volunteered to the Department of Health (DOH) that we will take charge of the San Jose Elementary School [as a clinic in addition to the airport clinic]. It’s about two kilometers away from our [airport] clinic. Our clinic was at the airport, so in that area, no one would volunteer because it was too far. So I told them, we’ll take charge of that. So here was one of the challenges, going to and*

*from the DOH was far – and we needed to get the medicines from them. After a day, we would run out. So we really had a hard time with the transportation. So in my head, I came up with the idea that when I come back, I have to do something about it. I have to do something about the barangay<sup>43</sup>. That's when I thought of 'Bike for Yolanda'. I was able to send in bikes to the barangay health workers. Even if they were 'big time' and had cars, they could not use the cars because gasoline was expensive. And if they could buy the gasoline, they would only be given 1 liter. So after a day, they would already have depleted their gasoline stock." –Jess (HQ)*

This personal experience of being a bike enthusiast, which can be considered a part of his personal knowledge, played a very concrete enabling role to the process improvisation he undertook to broker a system to access various resources.

Across those interviewed in *HQ*, there was a common tone that their domain-specific training alongside their personal experience reinforced their ability to adapt and think of various solutions, which in turn played an enabling role in various improvisations they undertook.

Meanwhile, in *Telco*, training was loosely mentioned as having shaped the actions of the engineers on the field. In a way, training and previous experience would have already played a role in 'hiring the right people' which *Ollie (HQ)* emphasized as being key to having engineers and teams that are 'not boxed in'.

Another individual attribute that emerged from the data corpus is that of **individual skill**. The common tone between the two case observations is the manifestation of individual skill to broker or negotiate their way into mobilizing action. This was referred to by *HQ* as 'art of human relations' or 'knowing what to do and making the call' by *Telco*. Anecdotes provided by *Telco* in undertaking

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<sup>43</sup> Small administrative divisions in provinces and cities in the Philippines

resource and process improvisation were also attributed to the ability of the field personnel to know their way around, and knowing when to make the call for certain critical decisions. For example, when asked how they came to a decision to undertake resource improvisation in converting the executive chopper into a cargo chopper, *Dave (field personnel, Telco)* attributes this to '*it was already their call – they already know what to do*'. This attribution implies a sense of performative skills, where the teams on the ground are deemed capable of working around various solutions and contingencies to achieve their respective goals.

A more concrete example of individual skills coming into play in shaping improvisation is exhibited in the anecdotes of *HQ*. For example, when asked about personal attributes that may have shaped the way they responded to the situation, both informants in *HQ* referred to '*art in human relations*' as well as '*knowing the parameters that define the goal*'. Indeed, exhibiting a skill of 'human relations' helped both *Jess* and *Troy* negotiate their way through undertaking two specific examples of process improvisation, i.e. brokering a system to access contingent resources, and improvising a relief system and operative goal-setting on the ground.

As far as brokering a system to access contingent resources are concerned, *Jess (HQ)* attributed this to the skill of the military officer to negotiate and understand the limitations of their individual positionality within the organization. In a way, he emphasizes that the higher the rank is, the more predisposed they are to specific skills in terms of brokering and negotiating.

*“Jess (field personnel, HQ) who had a higher position than those initially fielded in Tacloban for medical relief thought that it might be better for him to be on the ground in order to speed up the assessment. For an organization as tall as the military, he acknowledged that coordination in such situations is usually high level.” -Notes from the field (Doc. 2.9)*

*“It was really a big help [that senior authority was represented]. I think during that time, with this magnitude of [disaster] news, where instead of one there are a number of provinces that took the hit... what I thought was, somebody from up here in our organization needs to go there and see. In my mind, I was itching to go. I did not need to go there because somebody was already assigned. [...] but it was the senior officers who were talking.” –Jess, field personnel (HQ)*

Meanwhile, as far as improvising a relief system and operative goal-setting is concerned, *Troy (HQ)* talked about the importance of ‘*art of human relations*’. In managing the disaster, he had to come to terms with various extremes and challenges, including having to deal with senior officers from his organization, dealing with the conflicting process templates of various involved government agencies, as well as knowing when to relent or be strict with the overwhelming influx of victims who ‘*came in droves to the airport*’.

*“So you would have to pick, and it would not be easy because people would come in and say, ‘why are you prioritizing them when we got here first.’ So again, it would be an art of human relations, how to be firm on the one hand and how to be humane on the other hand.*

*You have to be firm enough to accomplish your task, yet soft enough to be humane. You must be able to empathize with the victims, inspire the hopeless, make them feel there’s hope in spite of what they’ve been through. You must also be able to enforce higher decisions. Like what I said a couple of times, [this can be] against the seniors. [...] The other thing is you need to know when to recharge yourself because the tempo is uncertain. The operational tempo – you would not know when this would be, you would not know what will happen tomorrow. The end is unclear! Although at the onset, your objective, you must have in mind what parameters will define mission accomplishment.*

*[... hence], goal-setting basically was, I try to be as broad as possible because I did not want to canalize the actions of the people. So long as they know what to accomplish, how they accomplish it, I leave it up to them. I give you the ‘what’, or they say, ‘sir, this should be the ‘what’, this should be what we should do today’.*

*The moment I approve that, I leave it up to them how to accomplish it. Okay, I leave it up to you.*

*The environment was not stressful, only a bit. But what was more stressful were the actions of the seniors that were not aligned with us [i.e. the way they are directing the relief system]. They would insist on their rank, 'it should be like this, like this!' [I would appeal], sir, you see it does not match, it is too chaotic. [For example] for every plane delayed on the tarmac, there were three or four planes waiting for clearance to land. [...]" –Troy, decision-maker (HQ)*

Among the anecdotes that expound on skill, it is apparent across the two case observations that as an attribute of improvisation, individual skill centers around the ability of organizational members to negotiate their way towards using improvisation and substantiating the use of improvisation as a means to manage the situation. To this end, individual skill is crucial for organizational members to enact improvisation that are especially characterized by rule-breaking or rule-bending, or that might imply conflicts with other people on the field.

A final attribute at the individual level which, as the data corpus shows, largely shaped the sense-making process of the organizational members, as well as the decision to undertake certain forms of improvisation, is that of **personal traits**. This was coded beyond skills and knowledge because they spoke more in relation to the individual disposition of the organizational member to act not just according to their training and experience, but also according their 'personal values' and disposition to exercise something that they perceived 'right'. Note though that personal traits were mostly emergent in the data corpus of *HQ*, where coincidentally, specific examples of process improvisation enacted at the individual level could be traced. For example, as *Troy (decision-maker, HQ)* narrated what

transpired on the field and how he came to certain decisions and certain actions, the term ‘values’ was recurrently emphasized.

*“Your value system will dictate the way you think and act if what you value the most, your core value, if the deepest part of you is to save human lives, then by all means, save a life. If it would mean violating the laws, the rules, the regulations – they were made for man. Man was not made for them. Right, didn’t the say in the bible – the Sabbath was made for man, and not man for Sabbath. The rules were made for the man – man was not made for the rules and laws. If the laws are not congruent with saving a life, forget the law, forget the regulations.” –Troy (HQ)*

Another example undertaken by HQ that surfaces ‘value system’ relates to the anecdote expounded on above in relation to the conflicting processes of the government agencies with the order provided by Troy (*decision-maker, HQ*) to distribute the relief goods to the victims even without an ID:

*“I mean, right, [they] have no clothes on and you would ask [them] for an ID? So give it out! [This] would reshape your value system because at the end of the day, we as individuals, we decide, we act, we think based on our value system. If your value system is congruent with the current reality, you will have no difficulty in deciding. If your value system is not congruent with reality – it will make you less adaptive.” –Troy (HQ)*

Ultimately, based on the anecdotes resurfacing from the data in relation to values, the common tone in Troy’s narrative as a person who exercised decisions that entailed rule-creating or otherwise rule-bending improvisation, is that values *‘define the sum total of who you are’*.

While the data corpus provided more elaborate details on HQ, this is not to discount the personal traits that likely played a role in Telco. Indeed, as the conversations with Dave (*field personnel, Telco*) progressed and allowed for the exploration of what was driving the individual decision of the engineers to



improvise the authority process, or to undertake resource improvisation in relation to the repurposing of the choppers, he explained the thinking and action of the engineers as being grounded on the ability to help:

“Even if they do not have explicit authority, they would do it. It is already practiced in our organization. If you are on the field and you can do something, you do something about it.” –*Dave, field personnel (Telco)*

He further provided an example of how the ‘free calls station’ was first set up in their first collective experience of a disaster, and how it eventually came to be practiced during instances of calamities, emergencies, or disasters:

“For example, an anecdote, when there was a derailment of train in Quezon [province], immediately, the people on the ground are the engineers. So they went there to see what they can do. The first thing they knew that the clients wanted to do is to contact their relatives to make their situation known. So we brought telephones – free call stations. Since there were also search and rescue operations, they would also assist. Those that needed to be brought to the hospital, since there were not enough vehicles, we would use our own resources to bring them in. And then in the hospital, we asked, ‘do you want to call your relatives? That was the beginning of the free calls station. We would let them call their relatives for free. There was no prior authorization to that. But that was the call of the local head. If somebody needs help, let us help. And they [those on the field] will be commended for doing that.” –*Dave, field personnel (Telco)*

Indeed, the anecdotes of each case observations regarding the manifestations of personal traits and how these helped shape their actions helped to track down the extent to which personal traits propel organizational members to undertake some form of improvisation in instances where the improvisation was enacted at the individual level (i.e. experience of *HQ* in undertaking two examples of process improvisation). For example, the articulation of ‘values’ or ‘sense of not being an added challenge’ in the disaster event was articulated with a sense of personal

ownership, which in turn made it easier to connect the attribute as having enabled a particular type of improvisation. Meanwhile, *Telco* exhibited improvisation that are mostly enacted at the interpersonal level, and even though they provide anecdotes that imply a manifestation of personal traits, how their act of improvisation is enabled by such individual attributes is more difficult and less straightforward to articulate.

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All the three individual attributes previously found in *Case 1* also surfaced in *Case 2*. Salient findings include the following:

First, the individuals exhibit wide and deep knowledge, primarily because of two things: the specialist nature of their respective functions, as well as the common organizational experience of managing various examples of catastrophes.

Second, skill also emerged from the data corpus, which is manifested mostly through what one of the informants coined as ‘art in human relations’. This was particularly prominent in examples provided on process improvisation, which required a particular skill of brokering to mobilize actions.

Among the three attributes, personal traits, which is grounded in the data corpus, had the most recurrent, and strongest manifestation. As far as the data corpus provides, personal traits were instrumental in shaping various types of improvisation, but more particularly rule-bending and rule-creating types of process improvisation. Personal traits were articulated according to the ‘values’

that the organizational members have. Often, these traits are also articulated as something that surfaces in conjunction with knowledge and skill. This is to say, that personal dispositions on values play a role simultaneously with skill and knowledge when disasters are managed. The coming together of these three individual level attributes in mobilizing action is captured by one of the informants, 'this is where you surface your training and your values.'

Another interesting finding is that individual attributes that enable improvisation are easier to track in instances where the improvisation is enacted at the individual level. To this end, while distinct examples of improvisation are explored from the perspective of *Telco*, the extent to which individual attributes are explored in the said case observation is less elaborate than that of *HQ*.

Nevertheless, the data corpus between both case observations exhibit a common tone that attributes of individual agents are important in propelling improvisation. In most examples of improvisation, the individual attributes are shown to be playing a role that is stronger than collective level attributes in enabling improvisation. The next section highlights these examples as specific points for analysis in the dissertation.

## **E. Chapter Summary**

This chapter provided the core findings from *Case 2*, observed from two organizations that entered the field after the typhoon. These organizations include: a

military organization (*HQ*) and a telecommunications company (*Telco*). The main findings are summarized below:

1. Prior to the typhoon, both organizations had an advantage of information, alongside resources to address the typhoon. Both case observations felt secure in their preparations, and they only entered the field after the typhoon hit. As soon as they lost contact with people on the field, teams from both organizations were deployed. On the one hand, *HQ* was initially deployed for a specific mission of assessing the situation, while on the other hand, *Telco* was deployed to account for the needs of their local employees, their clients, and distribution channels, as well as to restore the damages in telecommunications. Despite the advantage of information and related resources of both organizations, they found themselves in a context where the challenge was not the availability of resources, but the usability of resources, as well as the urgent need to manage the situation on the ground and restore order.
2. The challenge of inapplicable resources and inapplicable plan had implications for the goals that each organization set. These implications were, however, isolated for their operative goals because the official goals of each organization remained untarnished. In a way, the official goals of each organization became a guiding mold that shaped how the operative goals were supposed to adjust. The adjustments in operative goals are presented in (Table 15). These adjustments meant working around existing templates to achieve specific

outcomes, or otherwise creating new templates that could work for the new situation. These in turn became a precedent for various types of improvisation.

3. Improvisation manifested itself in two ways: through resource improvisation and process improvisation. Role improvisation was not apparent. Instead, what was found in the data corpus were instances of 'multi-tasking', which are already internalized in the roles of the field personnel deployed on the ground. Hence, they could not be coded as 'role improvisation'.

- a. Most acts of resource improvisation were enacted interpersonally among teams, and often the degree at which they were enacted was mostly minor, or otherwise bounded. Some examples include conversion and repurposing of air assets (e.g. *HQ* and *Telco*) to make deliveries of relief goods and transportation of victims efficient, as well as the creation of a makeshift clinic. Unlike in *Case 1*, no example of radical innovation emerged (e.g. *Arcie of Energy District in Case 1*) presumably because of the abundance of basic resources they needed to achieve their organizational objectives on the ground.

- b. Acts of process improvisation were mostly undertaken at the individual level, and occurred at either a structural or a bounded degree. There was also an instance where the data corpus showed an example of process improvisation that is interpersonally enacted (e.g. *Telco* on the shortcutting of authorization process). In this case, it was difficult to attribute the action to a single individual, and the informants mention that

such decision was a product of agreements among teams. Meanwhile, *HQ* exhibited instances of process improvisation that was undertaken at the individual level. One example was bounded, where *Jess (HQ)* tried to broker a system for his team to access certain resources that were quickly being depleted. Another example was structural, where *Troy (HQ)* found himself in a situation where he had no choice but to continuously improvise the relief system by the day until it stabilized, alongside the operative goal-setting.

4. As far as the data corpus illustrate, these acts of improvisation were enabled by various attributes at the level of the individual and collective.
  - a. At the collective level, organizational structure, organizational process, and organizational culture manifested themselves most recurrently in the data corpus. Structure provided some form of 'improvisational rights' and it was important in asserting and justifying the acts of improvisation undertaken by the organizational members. Meanwhile process enabled improvisation in two ways: (a) as signal for which improvisation must be undertaken or, (b) as a guiding template for new actions. Note that the data corpus demonstrates that for both case observations, process was elaborate insofar as preparation frameworks are concerned. However, the closer the organization approaches the response phase, the more arbitrary the process became. There have also been instances, however, when undertaking improvisation comes in conflict with already existing

processes. To this end, process enabled improvisation in two ways: firstly, the absence or otherwise arbitrary nature of organization helps improvisation take place in that they serve as a signal for solutions; secondly, where conflict in existing processes arise, such pre-established processes help improvisation take place in that it serves as a guiding template for the modifications to occur. Moreover, organizational culture also manifested itself recurrently in the data, and various instances in the data corpus demonstrate how organizational culture helped the organizations improvise in the sense that there was organization-wide acknowledgment and active espousal of 'unconventionality', 'empowerment to decide', and 'adaptability'. Other organizational level attributes also surfaced from the data corpus, albeit the degree to which they enabled improvisation were only corollary. These include organizational knowledge, and access to resources through networks.

- b. At the individual level, knowledge, which includes training and previous experience, also enabled improvisation. Another individual attribute that emerged from the data corpus is that of individual skill, which mainly referred to the ability of the organizational members to broker or negotiate their way into mobilizing action. Most of the anecdotes for which individual skill was demonstrated were characterized by rule-breaking or rule-bending types of improvisation, or those which may imply conflicts with other people on the field. Finally, personal traits also

manifested itself recurrently in the data corpus, and centered on the theme of personal values. In particular, personal values were crucial in forming the decision of the organizational members to undertake an act of improvisation.

The next part of this dissertation (Part III) will bring together the findings presented from *Case 1* and *Case 2*. These will be subjected to within- and cross-case analyses, and where cumulative narratives are presented, conceptual inferences are put forth. Additionally, implications and contributions to the body of work on the study of organizational improvisation, as well as to management practices in disaster environments are put forth.



## PART III: THEORETICAL ANALYSIS

This part folds in the two cases presented in Part II and presents them as evidence in answering the main inquiry of this dissertation. This is undertaken by presenting the cases together and surfacing conceptual inferences that are either applicable uniquely to one case based on certain contextual conditions, or, where applicable, comparable for both cases. Recall that the previous section (Part II) presented an in-depth discussion of the findings for each case. Each within-case analysis (Chapters 4 and 5 respectively) presented the following main components: (1) a narrative that describes the experience of the case observations during the 2013 Super Typhoon Haiyan, (2) a discussion on the respective goals – official and operative - of the case observations, and how an element of shock based on the magnitude of the typhoon implied dilemmas in achieving their goals; (3) a discussion on how the case observations resorted to various types of improvisation (resource, role, and process) as a means of coping with the situation while ensuring that they meet their goals; (4) the degree and level at which improvisation is enacted, and (5) the attributes at the organizational and individual domains that shaped the type of improvisation that the organizations undertook.

As a summary, Table 17 provides a snapshot of how these components are different or similar for each case. These components are highlighted as this chapter ties in the main research questions of this dissertation.

Components of Case Presentation	Case 1	Case 2
<i>Narrative (Salient Points)</i>	<p><b><u>Pre-typhoon:</u></b></p> <ul style="list-style-type: none"> <li>- Responding organizations are situated locally on site before the typhoon, and they are small, local organizations.</li> </ul> <p><b><u>During Typhoon:</u></b></p> <ul style="list-style-type: none"> <li>- Element of shock occurred due to magnitude of damage</li> </ul> <p><b><u>Post-Typhoon:</u></b></p> <ul style="list-style-type: none"> <li>- There was a tight coupling between the goals and the pre-existing templates.</li> <li>- Pre-existing templates/action plans were not compatible with the main goals of the organizations.</li> <li>- The conflict between the goals on the one hand and pre-existing templates on the other hand caused dilemma on the part of the organizational members.</li> <li>- The dilemma, in turn, caused the organizations to consider improvisation in order to stay in action.</li> </ul>	<p><b><u>Pre-typhoon:</u></b></p> <ul style="list-style-type: none"> <li>- Responding organizations entered the disaster site after the typhoon hit.</li> </ul> <p><b><u>During Typhoon:</u></b></p> <ul style="list-style-type: none"> <li>- Element of shock occurred due to magnitude of damage, and absence of patterns.</li> </ul> <p><b><u>Post-Typhoon:</u></b></p> <ul style="list-style-type: none"> <li>- The pre-existing templates to achieve certain goals are abstracted, so there is a loose coupling between the goals and the pre-existing templates.</li> <li>- Pre-existing templates/action plans were flexible according to the situation.</li> <li>- The lack of patterns caused dilemma on what to undertake next.</li> <li>- The dilemma, in turn, caused the organizations to consider improvisation in order to stay in action.</li> </ul>
<i>Goals</i>	<p>Operative goals and official goals are clearly established, where the former substantiates the latter.</p> <p>Operative goals are tightly coupled with pre-established action plan.</p>	<p>Official goals are clearly established, while operative goals are changing.</p>
<i>Improvisation</i>	<p>Examples of resource, role, and process improvisation</p>	<p>Examples of resource and process improvisation; no examples of role improvisation found</p>
<i>Levels and Degrees of Enactment</i>	<p>Minor, bounded, and structural types of improvisation are enacted at individual and interpersonal levels.</p>	<p>Minor, bounded, and structural types of improvisation are enacted at individual and interpersonal levels.</p>
<i>Collective Level Attributes</i>	<p>Most recurrent in the data corpus: organizational structure and organizational process.</p> <p>Corollary codes: culture, knowledge, and access to resources and assets</p>	<p>Most recurrent in the data corpus: organizational structure, organizational process, and organizational culture</p> <p>Corollary codes: knowledge, and</p>

Components of Case Presentation	Case 1	Case 2
	through networks	access to resources and assets through networks
<i>Individual Level Attributes</i>	Recurrent codes in the data corpus: knowledge, skill, and personal traits (grounded)	Recurrent codes in the data corpus: knowledge, skill, and personal traits (grounded)

**Table 17: Snapshot of Cross-Case Findings**

This part of the dissertation is arranged in two main chapters, which address separately the two components of the main research inquiry, *‘how does the interaction of individual and collective level attributes among improvised actions of the organizations explain how they can realize their goals, i.e. be effective, in extreme contexts?’*

First, Chapter 6 answers the first aspect of the question by establishing a process narrative of how improvisation enables organizations to realize their goals, i.e. be effective. Ultimately, the findings show that improvisation is tied with ‘goal realization’ as an organizational outcome, and as will be explained in detail below, this occurs in two ways: on the one hand, improvisation makes organizations effective by means of a *buffering effect*, while on the other hand, improvisation can also make organizations effective by means of a *connection-seeking effect*.

Next, Chapter 7 answers the second aspect of the main inquiry, establishing a narrative of how individual and organizational level attributes come together in the enactment of improvisation for organizations to be effective. The objective of this chapter is to argue for the *organizational-ness* of improvisation. As expounded on in Chapters 1 and 2, this dissertation aims to surface the role of individual agency in bringing about

improvisation, and the reason for this is mainly to tease out the role of individuals as architects of improvisation because ultimately, certain acts of improvisation are individually undertaken. To date, however, the literature on organizational improvisation mostly centers around the discussion of the organizational level attributes, e.g. structures, processes, culture, etc. Thus, this dissertation aims to contribute to the discussion by providing case evidences that highlight the role of the individual in enacting improvisation to achieve certain organizational outcomes. To provide evidence to this role, three narratives are provided in relation to how individual organizational members and their respective personal (individual-level) attributes figure in the collective-level attributes of the organization: the first narrative shows an equal attribution of roles between the individual-level and the collective-level attributes; the second narrative shows an instance where the individual-level attributes play a bigger role than the collective-level attributes; and the third narrative shows an instance where the collective-level attributes overtake and subsume the role of the individual-level attributes.

For each chapter, a section that discusses the contribution of this dissertation is provided. Two contributions are considered: (a) a process narrative on how improvisation helps make organizations effective, and (b) process narratives on how individual and organizational level attributes interact with one another in the enactment of improvisation that makes organizations effective.

## 6. ANALYSIS: PROCESS NARRATIVE OF PURPOSE-DRIVEN IMPROVISATION

**Question:** *Does improvisation make organizations purposefully effective, and if so, how?*

**Answer:** *Improvisation makes organizations effective, i.e. realize their respective goals, particularly through two identified effects of improvisation: (a) the buffering effect, and (b) the connection-seeking effect.*

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The main inquiry that frames this dissertation is *'how does the interaction of individual and collective level attributes among improvised actions of the organizations explain how they can realize their goals, i.e. be effective, in extreme contexts?'*. The motivation for this inquiry stems from a gap identified in the literature (see Chapter 2) regarding the need to understand the process by which improvisation becomes beneficial among organizations which, for reasons of temporal and spatial characteristics of the context they navigate in (i.e. extreme, unpredictable, urgent), are inevitably predisposed to acts of improvisation.

Answering this inquiry entails a deep exploration of two related aspects: first, to demonstrate the process by which improvisation relates to goals, and second, to demonstrate how the sustenance of goals are enacted in an organized process considering various attributes at both individual and organizational domains.

As regards the first sub-inquiry, improvisation has been regarded in the literature as neither positive nor negative (Vera & Crossan, 2005; Weick, 1998). At best, they can yield positive outcomes for the organization, including increased innovation performance, quick and effective relief provision for disaster victims (Kendra & Wachtendorf, 2002; Miner et al., 2001; Moorman & Miner, 1998b; Vera & Crossan, 2005; Wachtendorf, 2004). At worst, improvisation may bring a 'dark side' to it – especially in highly technical settings that warrant safety standards (Giustiniano et al., 2016a). Still, some caution around using improvisation as a mechanism to achieve certain organizational outcomes lurk around scholarly discussions.

Primary amongst the concern centers around whether improvisation is merely an accidental solution to contexts that require them to urgently address a particular situation – and if this is indeed the case, then the outcomes of improvisation may likely be accidental as well. The scholarly conversations in the field of improvisation thus logically and validly emphasize a general tone that explores how improvisation happened, what the likely benefits and disadvantages are, what it resulted into, who enacts it, and what likely conditioned it. What is missing is a discussion on how exactly does improvisation bring about organizational outcomes, especially among organizations that are inevitably predisposed to using improvisation in particular contexts characterized by uncertainty, shock, disturbance, and chaos. There is a particular group of organizations where improvisation is not an accidental 'let's just do it' solution directed at hurdling a particular situation, but rather a thoughtful and meaningful solution directed towards a specific organizational outcome. This group of organizations can include: (a) fast response

organizations dealing with crisis and disasters, e.g. military, hospitals, first responders like police and firefighting organizations; or (b) those that are not routinely involved in disaster environments but must maintain business continuity to ensure consistent provisions of public goods, e.g. utility companies such as water, telecommunications, and energy organizations; or (c) those that are functioning in high risk environments where safety templates are crucial, e.g. organizations in aviation, maritime, chemical, and construction industries; or (d) theater and musical groups (Mirvis, 1998). For this group of organizations, they rely on the realization of goals as a measure of effectiveness.

Thus, this dissertation inquires – does improvisation purposefully make organizations effective, and how? To answer this question, it is necessary to pin down exactly what grounds organizational effectiveness for this group of organizations. Taking the cases of disaster critical organizations, this dissertation found that being effective in the respective contexts they operate in are grounded on their ability to realize goals.

As explored in Chapter 2, the literature on improvisation scantily pins down a specific organizational outcome that can result from such action. It has been empirically related to innovative performance (Vera & Crossan, 2005) and learning (Miner et al., 2001) albeit in context of firms that operate in dynamic and ‘turbulent’ contexts. Meanwhile, in more disaster or crisis-related contexts, it has been related albeit in an implied manner to a *managed situation* where the organizations are able to cope accordingly and avoid getting tangled up in deep consequences of a disaster (Wachtendorf, 2004; Weick, 1998). In a theoretical framework put forth on studying improvisation, ‘improvised performance’ was also articulated as the most obvious

outcome of improvisation, alongside other incidental and long-term outcomes including, flexibility, learning, personal feeling of transcendence, and increased motivation to improvise (Kamoche et al., 2003). What the findings from this dissertation show, however, is that when organizations improvise, they seek out very specific outcomes that relate to their ‘goals’, a construct that has yet to be expounded on in the literature.

As the findings suggest, there are two levels at which goals are defined: (a) the main purpose for the existence of the organization, i.e. their product or service function, and (b) the purpose for the organization to be in the field. These two levels are reminiscent of the classic literature that explores goals in complex, dynamic and interactive contexts (Hill, 1969; Perrow, 1961; Thompson & McEwen, 1958a). Particularly, the distinction is reminiscent of Perrow’s (1969) conceptualization of official and operative goals, which both *Case 1* and *Case 2* display. Table 18 below provides a snapshot of how these two levels of goals were manifested both cases.

<b>TWO LEVELS OF GOALS REPRESENTED</b>	<b>CASE 1</b>	<b>CASE 2</b>
<b>LEVEL 1:</b> Official goals (presented in Part II – refer to Table 9 and Table 14)	<b><i>Focus on provision of main product or service</i></b>  E.g. <ul style="list-style-type: none"> <li>▪ <i>Water District</i> – provision of water to district concessionaires</li> <li>▪ <i>Town Hospital</i> – provision of quality health care to district constituents</li> <li>▪ <i>Energy District</i> – provision of holistic development of country side through total electrification and efficient delivery of power</li> </ul>	<b><i>Focus on provision of main product, service, or exercise of constitutional mandate</i></b>  E.g. <ul style="list-style-type: none"> <li>▪ <i>HQ</i> – protection of the people and the state, to secure sovereignty of the state and the integrity of national territory</li> <li>▪ <i>Telco</i> – to provide client-focused digital innovations with respect to connectivity</li> </ul>
<b>LEVEL 2:</b> Operative goals (presented in part II – refer to Table 10 and	<b><i>Focus on the organizational purpose for being on the field</i></b>  E.g. (evolved operative goals)	<b><i>Focus on the organizational purpose for being on the field</i></b>  E.g.



Table 15)	<ul style="list-style-type: none"> <li>▪ <i>Water District</i> – attend to broken pipe; sanitize the dam; normalize the workforce; provide employee salaries</li> <li>▪ <i>Town Hospital</i> – provide undisturbed medical relief to victims; relocate patients to safety; feed the patients</li> <li>▪ <i>Energy District</i> – clear the roads for restoration of the utility poles; re-energization of all the coverage area within 40 days; normalize workforce turnout</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>HQ</i> – send first team in for assessment and identification of plan of action; provide quick response</li> <li>▪ <i>Telco</i> – to provide connectivity needs of the clients; preposition the relief goods; restore the network</li> </ul>
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**Table 18: Cross-Case Comparison of Two Levels of Goals Manifested in the Data Corpus**

Indeed, both *Case 1* and *Case 2* identify goals as having framed their action. This means that every action that they took is directed towards materializing the goals that were set by their organization. When asked to identify what goals they were pertaining to, the discussion in both cases led to a deeper exploration of ‘goals’, and in turn led to two interpretations: first, the main purpose for the function of their organization (i.e. their official goals), and second, the purpose for their involvement on the field (i.e. their operative goals). This distinction was important in understanding why they resorted to certain actions, including improvisation.

While the two levels of goals are found similarly occurring across both cases, the mechanics by which each level played out in each case were different – and this shaped the process by which improvisation brought about the realization of goals. On the one hand, *Case 1* displayed a case where improvisation played a *buffering effect* between the two levels of goals. On the other hand, *Case 2* displayed a case where improvisation served a *connection-seeking effect* with the official goals.

## **A. The Buffering Effect of Improvisation on Organizational Goals**

For *Case 1*, there was a tight coupling between the official and the operative goals. The official goals constantly pervade the organization, while the operative goals are elaborately established prior to the onset of the typhoon. As evidenced by the findings, there is a common tone amongst *Case 1* that they have prepared enough with their best intentions and to the best of their abilities. Every organizational member was briefed on the duties and the goals they were supposed to realize in the event of the typhoon. Process was in place, and structure provided the necessary mandates.

When the organizations found themselves in shock, and when their capacities were overwhelmed by the magnitude of the disaster, the default action was to reconsider whether what they prepared for and the processes that were in place were still aligned and would still enable them to realize their pre-established goals. This was the point where the distinction between the operative and the official goals became crucial. It was evident in *Case 1* that all case observations converged to preserving their goals. However, the presence of the shock caused by the magnitude of the damage by the typhoon produced some challenges to realizing their goals. These challenges came in the form of resource and procedural constraints that were foundational to the establishment of their respective operative goals, and their pre-established operative goals were in turn supporting the official goals. Hence, the constraints affected the way in which the operative goals could be undertaken. The immediate dilemma is captured by the question

'we have to... but...' considering that the operative goals were no longer applicable<sup>44</sup>. This resulted in the adjustment or altering of the operative goals, which in turn resulted in the adjustment of actions. Consequently, the adjustments of actions became largely improvisational and were consciously undertaken to ensure that the actions are directed towards the established goals of the organizations in *Case 1*.

Improvisation, in this regard, was a meaningful, thoughtful solution to make sure that any adjustments undertaken at the level of operative goals could be acted on, and were still aligned with the official goals. This instance of using improvisation to accommodate the changes at the level of operative goals were seen to be largely supporting the preservation of the official goals. ***Ultimately, improvisation was used to buffer the changes occurring at the operative goals in order to preserve the official goals.***

*Figure 9* provides a visual representation of how the buffering effect occurs. As inferred from the narrative, the process follows three phases: (a) Phase 1 considers the state of the organization prior to any element of shock, (b) Phase 2 considers the state of the organization when an element of shock is introduced, and finally (c) Phase 3 considers the state of the organization after it has made sense of the shock and resolved to undertaking action.

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<sup>44</sup> See Chapter Chapter 4 '4. CASE 1: SMALL ORGANIZATIONS AND THE TYPHOON THAT 'WIPE (THEM) OUT'' subsection B.ii. 'The Resolve to Stay in Action' on page 124

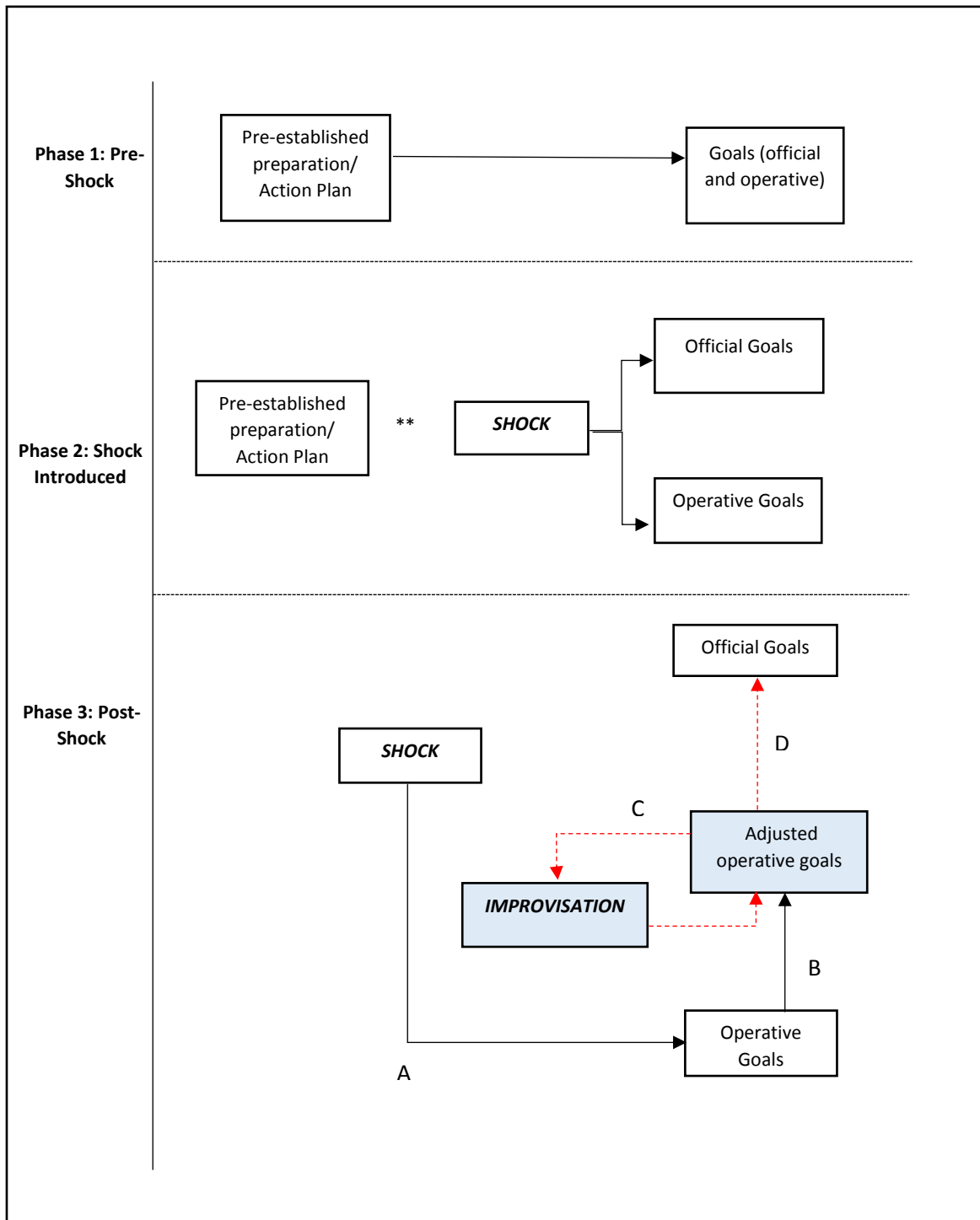


Figure 9: The Buffering Effect of Improvisation in Bringing About Goal Sustenance in Disaster Environments

Linguistically, *buffer* is defined as ‘any of various devices or pieces of material for reducing shock or damage due to contact’ or ‘something that serves as a protective barrier’.<sup>45</sup> In the context of this dissertation, I draw on the definition of the term as an action term *buffering* to conceptually advance the inference that improvisation buffers the shock between operative and official goals, in the interest of staying effective, i.e. realizing their core purposes.

As shown in the framework (Figure 9), Phase 1 provides the state of the organization prior to the typhoon. For the organizations observed in *Case 1*, their actions and their preparations are directed towards the achievement of pre-established operative goals (relative to the anticipated typhoon) and their official goals. The connection between these two, i.e. the action and the goals, are straightforward. Moreover, the goals are conjointly occurring/tightly coupled with one another because the operative goals were thoughtfully established in support of the official goals.

Phase 2 provides the state of the organization when a shock is introduced, which in the context of this dissertation, came in the form of the damages brought by Super Typhoon Haiyan. This shock was characterized in its magnitude as displacing the prior preparations of the organizations, alongside their previously planned action. As the illustration provides, what was previously a straightforward link between the preparations and planned actions on the one hand, and the goals on the other hand, becomes disconnected (denoted by ‘\*\*’ in Phase 2 of Figure 9). Shock can disconnect previous

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<sup>45</sup> Buffer. In *Merriam-Webster.com*. Retrieved 28 June 2018, from <https://www.merriam-webster.com/dictionary/buffer>

preparations and planned actions from the goals because they all of a sudden become inapplicable to the new context faced by the organization. Moreover, the element of shock becomes an antecedent for sense-making among the organizational members (Weick et al., 2005b) managing the disaster, where they have to consider various adjustments necessary to move forward. To this end, what was initially presented as a tight coupling between the official and the operative goals, have to be delineated. Indeed, as shown in the case findings of *Case 1* (see Chapter 0) as the informants expounded on the considerations they had for the adjustments that needed to be undertaken, they had to resort to a more detailed discussion of the difference between the purpose of the organization, and the purpose of the organization on the field. They had to isolate the official goal, i.e. the core purpose of existence, from their operative goal, i.e. the purpose of their presence in the field. This allowed them to assess what part of the goals were affected by the shock, and in turn, where the adjustments must follow.

Phase 3 is where improvisation comes into play. This phase provides the state of the organization after they have absorbed and made sense of the shock, and when action must be consciously directed towards a specific organizational goal, i.e. the realization of goals. The findings of *Case 1* particularly provide evidence that the adjustments are absorbed at the level of the operative goals (refer to 'A' in Phase 3 of Figure 9). The operative goals are in turn adjusted (refer to 'B' in Phase 3 of Figure 9). Note however that the adjustments are still aimed towards preserving the bigger purpose of the organization, i.e. the official goals. The adjustments are thus consciously and thoughtfully considered to make sure that they can still be aligned with the official goals. To this end, new actions, i.e.

improvisation, are sought in order to address these adjusted goals (refer to 'C' in Phase 3 of Figure 9). Examples of actions in this phase are summarized in Table 19.

<b>Phase 2: Operative Goal from the Action Plan</b>	<b>Phase 3 – A: Shock</b>	<b>Phase 3 – B: Adjusted Operative Goal</b>	<b>Phase 3 – C: Improvisation</b>	<b>Phase 3 – D: Preservation of Official Goals</b>
<b>Minimal disturbance to energy provision by having enough propositioning of materials and manpower</b>	90 percent of the utility poles fell to the ground	Re-erect the utility poles within 40 days	Resource improvisation: Energy District creates indigenous technology	Continuous provision of energy to the constituents
<b>Minimal disturbance to energy provision by having enough propositioning of materials and manpower</b>	Not enough engineers to address the broken pipe	Substitute workforce complement to undertake specific tasks	Role improvisation: Water District employee assumes the role of an engineering aide	Continuous provision of water to constituents
<b>Readiness to admit new patients and care for existing patients</b>	Dietician was not onsite for weeks	Substitute workforce complement to undertake specific tasks	Role improvisation: Hospital cook assumes the role of a dietician	Continuous provision of health service
<b>Readiness to admit new patients and care for existing patients</b>	There were only 2 out of 6 propositioned doctors	Engage the foreign medical practitioners under the supervision of Filipino doctors	Process Improvisation: Mary, chief of Hospital, engaged the foreign medical practitioners even in the absence of permit from the Department of Health	Continuous provision of health service

**Table 19: Examples of process dynamics in Phase 3 – Buffering Effect of Improvisation**

Ultimately, improvisation was a concrete action undertaken to ensure that the adjusted operative goals are met (refer to 'C' in Phase 3 of Figure 9), and in turn, supports the sustenance of the official goal of the organization (refer to 'D' in Phase 3 of Figure 9). This observation from *Case 1* is interpreted as the *buffering effect* that improvisation

brings in order to ensure that the organizations remain effective, which means that they are able to realize their core purposes.

## **B. The Connection-Seeking Effect of Improvisation on Organizational Goals**

Similar to *Case 1*, the case observations in *Case 2* are also in a position where goals, both operative and official, were clearly defined prior to the typhoon. However, as asserted in Chapter 5, *Case 2* differs in their approach to the typhoon given that the plan of action while on the field were characterized by some degree of flexibility. Indeed, the case observations in *Case 2* attribute this to their advantage of information, where they emphasized that they could forecast the 'hit', and that previous experience also helped them internalize and acknowledge that the 'hit' will inevitably entail increased tempo and scope of operations. To this end, *Case 2* differed from *Case 1* in the sense that while their official and operative goals were clearly established, the plan of action that will be undertaken to realize these goals were not necessarily elaborate. As asserted in Chapter 0, for example, the closer the typhoon hit, the less defined the plan of action for response becomes. This is done for a very specific reason, which is captured by one of the assertions of the informants from HQ '*to not canalize the action of the people*'. Note that this is also reminiscent of the culture of empowerment in *Telco* where the flexibility and authority is devolved to the people on the field during emergency situations.

The shock occurred for *Case 2* as they entered the field, when it came to their realization that their existing tools and initial plan for assessment would have to be foregone. It became a case of 'drop your tools' situation in a Weickian sense, and this



quickly prompted drawing up new actions. As expounded in Chapter 0, scant adjustments occurred in the operative goals of the case observations. Where there were adjustments, they were minor in the sense that it only implied foregoing a certain part of their operative goals to fast forward to addressing another set of operative goals that they were going to address anyway. For example, while the initial operative goal of *HQ* was to send in an assessment team to assess the situation and then draw up an action plan for response, they had to go directly to addressing the second part of the operative goal, i.e. draw up an action plan right then and there. Ultimately, both the operative and the official goals were preserved, and they served as a target for which the organizations would direct their actions to.

The response to this situation was to draw up actions to immediately address the chaos, and this included various examples of improvisation that were mostly centered around resource and process improvisation. Since the actions were new, and since there is scarcely a guiding script for these new actions (i.e. it was not targeted towards an adjusted goal as was the experience of *Case 1*), the role that improvisation played in bringing about organizational outcome was not to buffer the effects of the adjustments in the operative goal. Instead, improvisation was providing a *connection-seeking effect* between a new action and the already established goals. Furthermore, among these ‘established goals’, emphasis on the operative goals became less apparent than the emphasis provided to the core purpose of the organization, which embodied their official goals. More specifically, the official goals were supposed to guide and frame the actions undertaken by the organization. However, how these actions connect with the official goals of the

organization was not always clear. In the words of *Troy (HQ)*, 'you cannot connect the dots here'. Still, a thorough reading of the case findings led to the following interpretation: improvisation was undertaken by *Case 2* to bring about goal realization as an organizational outcome, and this is undertaken through a *connection-seeking effect*.

This connection-seeking effect highlights the active role of improvisation as an action undertaken to seek a connection with the goals of the organization. Figure 10 below illustrates this effect.

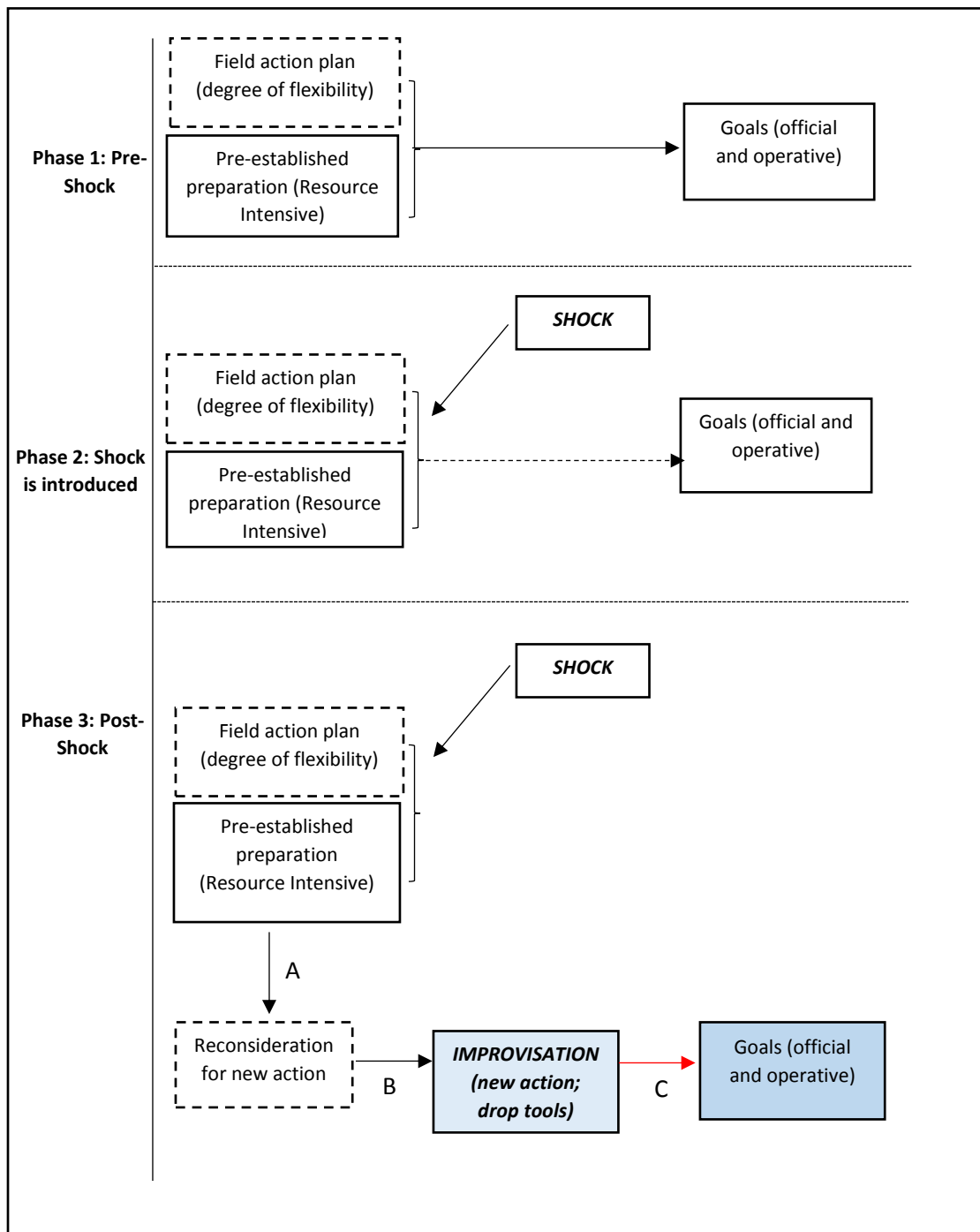


Figure 10: The Connection-Seeking Effect of Improvisation in Bringing about Goal Sustenance in Disaster Environments

The temporal considerations for tracing how improvisation brings about organizational outcome in *Case 2* is similar to that of *Case 1*. There was a phase prior to the shock, denoted as Phase 1, which is the time just before the typhoon made landfall. During this time, the goals of the organizations in *Case 2*, both operative and official, were clearly established. Moreover, preparations were intensive, with focus on ensuring that tools are available as they enter the field. During this phase, the field action plan was not strictly defined in order to account for a degree of flexibility among the responders. In turn, the resources (i.e. tools, including medical relief products, extra medicine, human resource complement) were complemented by a flexible field action plan, and they are jointly directed towards achieving the respective official and operative goals of the organizations.

At Phase 2, the typhoon finally made landfall in the region, and soon after, teams from each organization were deployed from the headquarters to manage the disaster. This phase entailed an element of shock for the organizational members entering the field. Unlike in *Case 1* where the shock caused the pre-established plan of action to be disconnected from the pre-established goals, the element of shock in *Case 2* instead triggered a weakening of the connection between the plan of action and the pre-established goals (denoted by broken lines). As previously emphasized, while the organizations entered the field with abundant resources, some of these resources all of a sudden became inapplicable to the context. Such was the experience of both *HQ* and *Telco* in terms of the cash they were carrying that could not be used on the field. Some examples included having transportation they could command, but there was no gasoline,

and the roads were impassable. Meanwhile, in relation to the creation of the makeshift clinic, *HQ* found itself in a position where what they had on hand could not be useful if they did not have the infrastructure to treat the patients. The resource availability did not match the actual resources needed – and they had to either ‘drop their tools’ or reconsider ways to repurpose them. The effect of the shock on the field action plan did not create too much issues, considering that both organizations set a precedent for flexibility. In this phase, the need to quickly reconsider both the resource applicability and the field action plan was evident. Another observation in this phase is that the shock did not prompt any need to delineate the operative goal from the official goal, particularly because the action plan was by nature flexible and would instead adjust according to the established goals. Ultimately, the wisdom of flexible action plan on the field surfaced the resoluteness of both the operative and the official goals. Given that the plan of action is already flexible, the field action plan absorbs and works around the shock, and any adjustment is not directed towards the established goals but rather on the action themselves.

This process of reconsideration of action is considered in Phase 3, which presents the state of the organizations after they have absorbed the shock, and have undertaken some form of sense-making on what to do next (denoted by ‘A’). The consideration for new actions prompted acts of improvisation (denoted by ‘B’), which were largely undertaken to direct the actions of the organization to its established goals (denoted by ‘C’). Ultimately, point ‘C’ in Figure 10, illustrates how improvisation brings about organizational outcome by means seeking a connection between the act itself on the one

hand, and the realization of goals as an organizational outcome on the other hand. This, in turn, is interpreted as the *connection-seeking effect* of improvisation with sustenance of goals. Examples of the process dynamics in Phase 3 are expounded in Table 20:

<b>Phase 2: Operative Goals (mission-driven)</b>	<b>Phase 3 – A: Shock</b>	<b>Phase 3 – B: Improvisation</b>	<b>Phase 3 – C: Preservation of Official Goals</b>
Needs assessment	Damage was overwhelming, no time for needs assessment	Process improvisation: Create a process on the spot.	Protection of life
To service the connectivity needs of the clients by alternative means of connectivity	To service the connectivity needs of the clients by alternative means of connectivity	Process improvisation: Shortcutting the authorization process for procurement and other critical actions ( <i>Telco</i> )	Provision of client-focused digital innovations with respect to connectivity
To provide immediate relief to the victims	Damage was overwhelming, there was resource mismatch	Resource Improvisation: creation of a makeshift hospital	Protection of life

**Table 20: Examples of process dynamics in Phase 3 – Connection Seeking Effect of Improvisation**

### **C. Conceptual Inferences for Consideration**

The analysis above provides an initial exploration of how improvisation and organizational goals are related to one another in disaster environments, given two varying profiles of organization. Of course, the limited number of observations per case constrains the ability to generalize. Nevertheless, the case observations provide evidence that allows to expound on certain arguments regarding the process by which improvisation is related to organizational goals. To this end, the following conceptual inferences are put forth:

*i. The Purpose-Driven Improvisation*

**Inference 1:** Improvisation can be consciously directed towards making organizations effective in extreme environments.

**Inference 1.A:** Improvisation purposely brings about organizational effectiveness in extreme environments through a *buffering effect*, where improvisation absorbs the adjustments at the level of the operative goals in order to realize the official goals.

**Inference 1.B:** Improvisation purposely brings about organizational effectiveness in extreme environments through a *connection seeking effect*, where improvisation actively seeks ways to be connected with the realization of previously established organizational goals.

Inference 1 opens up the discussion in the literature regarding whether improvisation is indeed an accidental stop-gap solution for novel situations. The findings in this dissertation show that for groups of organizations that operate in extreme contexts, improvisation can function beyond a stop-gap solution that results in accidental solutions. As previously asserted, the findings presented in *Case 1* and *Case 2* show that improvisation was used as a thoughtful, meaningful solution to achieve a very particular organizational outcome, which in the context of disaster environments, was interpreted as the 'realization of goals'. The argument, therefore, is that among organizations that are inevitably pre-disposed to elements of shock, using improvisation is a solution that is consciously directed towards ensuring that the goals of the organization are realized.

How exactly improvisation brings about goal sustenance as an organizational outcome is in turn articulated in two ways: through the buffering effect (*Inference 1.A*) or the connection-seeking effect (*Inference 1.B*).

*Inference 1.A* is particular to the patterns found among the case observations in *Case 1*, where all of them undertook various examples of improvisation (i.e. resource, role, and process) as a means of acting upon the adjustments in the operative goals, so that ultimately, the operative goals still serve to support the official goals. In a way, this is consistent with one of the assertions of Perrow (1969), wherein he stated that in an ideal situation, 'operative goals can be treated as a means to official goals'. This assertion was however followed with a caution that due to the high abstraction of the official goals, it is possible that operative goals become an 'ends' in themselves. As far as the findings in this dissertation illustrate, the proposed caution on operative goals likely becoming an 'ends' in themselves are not confirmed, even in the most extreme situation. None of the case observations from *Case 1* demonstrated that the adjusted operative goals defined the finality of the core purpose of their organization. Instead, the adjustments undertaken at the level of the operative goals were in support of the official goals. To this end, improvisation is one of the resulting actions used by organizations to ensure that any adjustments in operative goals are actionable, accounted for, and can be directed to support the official goals. This is thus termed as the 'buffering effect' of improvisation.



Meanwhile, *Inference 1.B* is particular to the patterns found among the case observations in *Case 2*, where the organizations found themselves reconsidering the kind of actions they would undertake as a response to the shock, but which are not immediately connected with the pre-established goals of the organization. In this instance, organizations adopt new actions that are improvisational, and these new actions are undertaken in a way that it seeks a connection with the pre-established goals. In a way, this argument tries to extend the prevailing discussion on examining improvisation from a process-perspective (Vera & Crossan, 2004) – where emphasis is placed on how improvisation happens more than how improvisation brings a certain outcome. Indeed, as shown in Chapter 2, the literature abounds in studies that explore how improvisation emerges. However, there are three temporal frames to be considered in studying improvisation using a process perspective: first, is the temporal frame that leads to improvisation; second, the temporal frame where improvisation brings the organization to a certain state, i.e. an outcome, in the immediate timeframe where action is warranted; and third, the temporal frame where improvisation leads to long-term results for organizations. The finding on the connection-seeking effect that improvisation plays in bringing about effectiveness as an organizational outcome demonstrates an opportunity to open up a discussion on the second temporal frame post-improvisation. Often, focus is directed on the time frame before improvisation happens, i.e. what leads to it, or the time frame that reflects the incidental and medium- or long-term effects of post-improvisation.

Another critical point to highlight as well is that both effects (*buffering* and *connection-seeking*) are captured in their dynamic states, where there is an iteration of whether the action and goals at the operative level serve the organization's purposes. Note that after the shock (see Phase III in Figure 9 and Figure 10), organizations improvise as a means of directing their actions towards the symbolic, official goals, which in turn resulted inevitably to altering the operative goals. This is reminiscent of a teleological mechanism of change (Berger & Luckmann, 1966; Chakravathy & Lorange, 1991; Etzioni, 1960; Van De Ven & Poole, 1995), which highlights the "*repetitive sequence of goal formulation, implementation, evaluation, and modification based on what was learned or intended by the entity*" (Van De Ven & Poole, 1995). This perspective underlies the main thesis of this study, i.e. improvisation is ultimately *purpose-driven*.

**ii. Conditions for the Occurrence of Either Effects (i.e. Buffering or Connection Seeking) of Purpose-Driven Improvisation?**

**Inference 2:** The occurrence of either effect (i.e. buffering or connection-seeking effect) is conditioned by the factors of (a) time, (b), shock, and (c) the extent of flexibility of action plans.

**Inference 2.A:** In relation to the condition of **time**, the effects of purpose-driven improvisation occurs after a shock, and after a decision to undertake action was consciously decided on.

**Inference 2.B:** In relation to the condition of **shock**, the effects of purpose-driven improvisation occur when the magnitude of shock either disconnects or weakens pre-established plans of action from pre-established goals of the organization.

**Inference 2.C:** The occurrence of either buffering or connection-seeking effect is conditioned by the extent of flexibility of existing action plans.

- Specifically, buffering effect may occur when the action plan rigidly specifies how to achieve operative goals, which ultimately are underpinned by the official goals. To isolate the potential spillover of the shock, the operative goals and the official goals become delineated, and improvisation is used to buffer the adjustments at the level of the operative goals.
- Meanwhile, the connection-seeking effect may occur when the action plan is flexible and does not provide strict templates on how to achieve operative goals. To accommodate the shock, new actions are quickly reconsidered to replace the previously identified action plan. These new actions, which are often improvisational, are consciously undertaken to connect the actions of the organization to their official goals.

Inference 2 expounds some parameters to the occurrence of the buffering effect of improvisation. Indeed, for the buffering effect to occur, certain conditions must be present – and these include considerations on (1) time, (2), shock, (3) flexibility of the action plans. This inference is thus sub-classified into three arguments.

First, Inference 2.A articulates the temporal considerations necessary for the either of the effects to occur, i.e. it must occur **after** the organization is subjected to shock that potentially disconnects their previous plan of action with their previously established goals. As illustrated in the frameworks (Figure 9 and Figure 10), both effects occur ‘post-shock’ (during Phase 3). This means that the organizations use improvisation to either buffer or seek a connection only after they recognize a shock, and after they have had the chance to make sense of the shock and determine what needs to be done next. In a way, this inference clarifies

the confusion often stated about improvisation as being incidental or accidental. It also supports the previous findings of scholars who assert that improvisation is a deliberate and legitimate means of achieving something (Leybourne, 2007; Miner et al., 2001).

Second, Inference 2.B expounds on the importance of the element of shock as a precedent to improvisation (M. P. Cunha et al., 1999, 2015). Shock can vary in gradation, and it is possible that organizations experience a shock or a disturbance but are still able to contain it so that their business continuity plans or emergency plans are reliable. For example, this can be the case among successful high reliability organizations (Bierly, 1995; Borschmann & Moran, 2011; Roberts, 1990) that manage to internalize the risk factors of their organization and are able to exhaust the risk scenarios they are faced with, and in turn codify it into institutionalized plans and processes. Such cases where the organization is able to connect their previously established plan of action with their goals despite the shock may be less likely to resort to improvisation, and as a result, neither of the effects as they are conceptualized in this dissertation may be present. Instead, the findings in this dissertation suggest that for either of the effects to occur, the nature of the shock must have a disconnecting effect for the previously established plan of action, and the goals of the organization. As illustrated in Phase 2 in both Figure 9 and Figure 10, what is previously considered a straightforward link between previous plans of action and the goals of the organization are all of a sudden disconnected by the shock. Buffering or connection-seeking effect thus

occurs when the shock disconnects the two, as was the case when the organizations in both *Case 1 and Case 2* found their plans and preparations inapplicable to the new context they are navigating.

Finally, *Inference 2.C* articulates which of the two effects is likely to occur, given the extent of flexibility of pre-established action plans. On the one hand, the more rigid an action plan is and the tighter it is coupled with the operative goals, the more likely a buffering effect can occur. For example, when asked to expound about what goals the informants were pertaining to when they were undertaking the acts of improvisation, the difference between two types of goals governing their action were apparent. On the one hand, they refer to the main purpose of the organization (i.e. official goals), while on the other hand, they also refer to how this core purpose is substantiated by their purpose for being on the ground (i.e. operative goals). As illustrated in Phase 3 of Figure 9, improvisation is a response to the adjustments made in the operative goals, and these adjustments are made with view to realizing the official goals. In other words, improvisation buffers the changes in operative goals in order to ensure that efforts of the organization are still consciously directed towards the official goal. Buffering thus exists at the intersection of adjustments made in the operative goals, and the realization of official goals. Pinning down when and how the buffering happens thus necessitates that operative and official goals are clearly defined.

Meanwhile, the more flexible an action plan is, the more likely improvisation a connection-seeking effect can occur. Note that both case observations in *Case 2*

prioritize flexibility of action plan the closer they enter the field. This way, the plans were calibrated to adjust in order to meet the goals. Hence, when it came to shocks, the plans would change according to what the official goals mandate. Unlike in *Case 1*, the action plans of each case observation were drawn up to be tightly, sometimes almost rigidly, coupled with the official goals. Hence, any shock triggered in the action plan could outrightly disconnect the connection between the action and the goals. Note however that the flexible orientation of the action plan does not automatically imply that any adjustments in the action plan are connected with the pre-established goals. Indeed, drawing up a new plan entails new actions, and new actions may or may not be consciously directed towards meeting the end goals. As such, Inference 2.C also articulates that undertaking improvisation highlights the conscious process by which the organization seeks a connection with the pre-established goals, and this is hence interpreted as the *connection-seeking effect* of improvisation.

#### **D. Contribution to the Process of Theorizing Improvisation-Goal Relations**

<p><b><i>Improvisation can be purposefully driven towards the realization of organizational goals, by means of buffering or connection-seeking effects.</i></b></p>
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The first argument arising from the findings and analysis is that improvisation can be purposefully driven towards the sustenance of organizational goals. In particular, improvisation is actively linked with organizational goals through what is conceptualized in this dissertation as *buffering* and *connection-seeking effect*.

As regards theory, this dissertation seeks to contribute to the theoretical conversations about how organizations manage disaster and related environments. While such area of study abounds in various but related themes that include flexibility, resource and capability configurations, coordination, among others, improvisation is used as the main point of exploration in this dissertation. Improvisation is particularly interesting because of the implications it can have on organizations that employ it. For example, improvisation is put forth as cornerstone of effectively undertaking action in response to novelty, uncertainty, turbulence, or in cases where organizations find a misalignment between expected and actual scenarios. Part I provides a detailed discussion of the current state of the art in improvisation studies, and one of the core arguments that favors its use relates to the advantages it can provide. Indeed, improvisation is oriented towards action in instances when organizations find themselves confronted by dilemmas where pre-existing templates or scripts are not aligned with the current situation. In such instances, improvisation becomes a springboard for action, and at best instance, it can also lead to innovation (Larsen & Bogers, 2014; Vera & Crossan, 2005). However, these promising outcomes of improvisation are also validly taken with caution. Particularly, the very same scholars who espouse the use of improvisation also highlight its likely disadvantages – primary of which is the devolution of control, which is oftentimes key in directing action among organizations, and also in ensuring that certain standards are not taken for granted. There is also a question of the context wherein improvisation should be best applied.

On the one hand, environments characterized by turbulence, uncertainty, and novelty are ideal contexts for organizations to improvise (Eisenhardt & Martin, 2000; Eisenhardt & Tabrizi, 1995; Leybourne et al., 2014; Wachtendorf, 2004; Weick, 1998). While on the other hand, improvising in uncertain, problematic, and novel situations might also impose accidents and risks if certain safety parameters are not accounted for (Flach, 2014; Giustiniano et al., 2016a). A related core issue relates to the low cumulativeness of studying improvisation as an action undertaken by the organization (otherwise termed as ‘organizational improvisation (OI)’) (Hadida et al., 2015). The argument centers around the level at which improvisation is enacted, which oftentimes is enacted by individual agents, which in turn raises an ontological issue of whether organizational improvisation should be studied at the level of the individuals who enact it, or simply subsume the role of the individuals at the organizational level in enacting improvisation. To this end, the extent to which improvisation can be picked up as an organizational action, i.e. its *organizational-ness*, is also debated. Moreover, in relation to the ‘*organizational-ness*’ of improvisation, caution is taken as to whether improvisation is merely a stop-gap solution that produces accidental outcomes. This dissertation particularly picks up on the last point, and argues, based on the findings on the field that in disaster and related contexts that improvisation can be organizational, and can bring about organizational outcomes

Ultimately, the question of ‘*organizational-ness*’ of improvisation can rest on the concrete outcomes that improvisation can provide for the organization, where outcomes are grounded on concrete organizational goals. Hence, one of the key objectives of this



dissertation is to conceptualize the process by which improvisation is related to organizational goals. The thought behind this is that the current tone of the literature on organizational improvisation is that it is mostly a coping mechanism that can help organizations quickly revert to normal routines (Crossan & Sorrenti, 2002; Leybourne, 2007). As a result, organizational outcomes resulting from improvisation are scantily explored, and where they are, they are mostly taken from the vantage point of incidental outcomes. Moreover, studies that have previously empirically or conceptually explored the incidental results of improvisation tend to focus on those that imply changes in the behavior of the organization in the medium or long term. These include learning (M. P. Cunha et al., 2015; Miner et al., 2001; Vendelø, 2009), flexibility (Webb & Chevreau, 2006), and where applicable, innovation (Larsen & Bogers, 2014; Vera & Crossan, 2005). Often, those that explore the process by which improvisation is undertaken imply that the concrete outcome that follows improvisation in the short term, i.e. the time frame in which an urgent action is warranted, is a 'managed situation' or a 'mismanaged situation', as were implied in the study of improvisations in 9/11 (Wachtendorf, 2004) and related crises, including the Mann-Gulch Fire (Weick, 1993), the Concordia disaster (Giustiniano et al., 2016a, 2016b) among others.

This dissertation thus positions itself within an opportunity to contribute to the ongoing theoretical conversations regarding improvisation and organizational effectiveness as an outcome for the organization. Indeed, if improvisation is to be treated as an action that is highly suggested as a means to manage novel, uncertain, or turbulent situations among organizations, it is important to pinpoint how an organization can

benefit from it. While the medium and long-term benefits mentioned above indeed occur, it is also important to emphasize that it can be linked with concrete outcomes within the timeframe of urgency that action is warranted. The findings and subsequent analysis in this dissertation provide evidence for this argument. Particularly, it provides evidence that the act of improvisation among organizations that are inevitably resorting to improvisation use the action as a means to achieve a very particular outcome, which is rooted in two types of purposes: the purpose for which the organization exists (i.e. official goals), and the purpose for which the organization is deployed on the field (i.e. operative goals). The findings and analysis of this dissertation opens up the discussion regarding the conception that improvisation is mainly a stop-gap solution that provides accidental or incidental outcomes. On the contrary, the findings expose that among organizations that undertook improvisation, despite the nature of spontaneity of the act itself, can be a conscious and thoughtful solution to achieve a particular outcome. This argument helps resolve the question raised in the literature regarding the *legitimacy of improvisation as a counter-strategy in the failure of strategy* by Leybourne et al (2014).

What is specifically evident is that outcomes are achieved through the sustenance of pre-established goals – and these occur differently among organizations that have different characteristics. First, improvisation brings about outcomes through a *buffering effect*. This is an effect commonly seen among case observations that have firmly set a plan of action to achieve particular goals. Among the case observations, it was common that the shock arising from the magnitude of the damage of the typhoon disconnected the plan of action from the goals. Moreover, because of the tight coupling between the plan

of action and the goals, i.e. actions are clearly laid out to achieve a particular goal, the shock triggered the delineation of the operative and the official goals of the organization. This delineation is undertaken by those managing the disasters, who then had to reconsider an adjustment of operative goals (given that the previous ones are no longer applicable), and quickly resolve the ability to act on it, which as far as the findings show, are mainly improvised solutions spanning from resource, to role, to process types of improvisation. In this case, improvisation was buffering the adjustments among goals at the operative goals so that they remain aligned with the official goals.

Meanwhile, the *connection-seeking effect* of improvisation occurs among organizations where the plan of action for responding to the disaster are flexible. In this case, the shock is seen to merely weaken (not disconnect) the link between the previous plan of action and the pre-established goals. However, because of the flexible nature of the plan of action, the adjustments warranted by the shock are absorbed at this level, and both the operative and the official goals remain as they are. Given that a new plan of action reconsiders novel actions, they are not necessarily immediately connected with the pre-established goals. As a result, acts of improvisation are examples of new actions that seek a connection with pre-established goals.

Ultimately, this has two implications for the process of theorizing organizational improvisation. First, it provides evidence that despite the spontaneous nature of improvisation, the outcomes it entails for the organization are not necessarily incidental. Instead, improvisation can be consciously and thoughtfully linked with organizational outcomes (Villar & Miralles, 2018). Second, realization of goals can be argued as an

outcome of improvisation. This is rooted in two purposes that emerged from the findings – the purpose for the existence of the organization (i.e. official goals), and the purpose for the organization's deployment on the field (i.e. operative goals). This is linked with the classic paper of Perrow (1961), in which he argues that understanding organizations that operate in complex environments necessitate the understanding of their goals, which in turn are more nuanced than the vision statements they produce. Instead, he proposes two levels of goals (i.e. operative and official), which are consistent with the findings in this dissertation. What is observed, particularly, is that the starting point for all observed organizations are characterized by goal congruence, in which the operative goals realize the official goals. Ultimately, how tightly they are coupled with either a flexible or a strict plan of action will determine what role improvisation will play in bringing about goal sustenance as an organizational outcome.

Second, it also brings to the fore a distantly related theory regarding the nature of how goals evolve as a result of volatility and uncertainty in the environment (Blettner et al., 2015; Fiegenbaum et al., 1996). A distinct part of the literature on organizational goals incorporated volatile, complex, and uncertain environments into the framework of goal-setting and goal-achievement. Fiegenbaum et al. (1996) particularly argue that organizations select *reference points*, which signal organizational priorities and overall organizational direction in specific situations. As a result, they modelled a situation wherein managers define strategic reference points for the organization, taking into full account the changes that occur in the environment. In more recent literature, the strategic reference point theory is also extended in the exploration of *adaptive aspirations*

(Blettner et al., 2015; Hu, Blettner, & Bettis, 2011). In effect, the models described in *strategic reference theory* (Fiegenbaum et al., 1996) and subsequent model of *adaptive aspirations* (Blettner et al., 2015; Hu et al., 2011) are reminiscent of the manner in which the organizations redirect and reorient their actions, and to an extent, their operative goals, in order to preserve the more symbolic purposes of the organization. There is thus an opportunity to the likely applicability of the models in the context of improvisation and goals.

## **E. Chapter Summary**

This chapter addressed the main research inquiry of this dissertation, i.e. *Does improvisation make organizations purposefully effective, and if so, how?* The findings from both *Case 1* and *Case 2* are thus analyzed to respond to this inquiry. The answer to this inquiry, in particular, is that improvisation makes organizations that operate in disaster environments effective, i.e. realize their goals (see Inference 1). This is particularly achieved through two identified effects: the buffering effect of improvisation, and the connection-seeking effect of improvisation.

Some of the salient points discussed in this chapter are presented below:

1. The *buffering effect* is defined as the ability of the action, i.e. improvisation, to absorb the adjustments in operative goals in order to realize the official goals.
  - a. The occurrence of this effect is conditioned by parameters of time, shock, and the delineation between operative and official goals.

- b. This effect is mostly present among organizations whose plan of action are strictly set in order to address specific goals. Hence, the effect of shock is not isolated at the action plan, but can also alter the goals of the organization. In order for the organizations to preserve the purpose of their existence, i.e. official goals, a delineation is seen between the operative goals and the official goals. In which case, adjustments are only targeted towards the operative goals and the action needed to address the operative goals.
  - c. In all instances, official goals remain preserved and realized by the organization.
- 2. The *connection-seeking effect* of improvisation is defined as the process by which the action, i.e. improvisation, actively seeks ways to be connected with the sustenance of previously established goals of the organization.
  - a. The occurrence of this effect likewise conditioned by time and shock. However, the third condition is related to the flexible orientation of the plan.
  - b. This effect is mostly present among organizations whose action plans for responding to the situation are flexible. The flexibility of the action plan implies that the effect of the shock can be absorbed by the plan itself, and as a result, goals and plans are not automatically disconnected. Instead, the link is only weakened, given that new actions must be reconsidered to realize the goals of the organization. Since new

actions are not automatically related to the pre-existing goals, improvisation is employed as an effort that seeks to connect the action of the organization with the pre-established goals.

- c. Neither the operative goals nor the official goals are adjusted radically and the shock does not cause the two to be delineated. Instead, they remain intact, and improvisation is undertaken in this instance to make sure that they are realized.

Complementary to this analysis is how improvisation is enacted to make organizations effective. This necessarily leads to a related inquiry, i.e. who are the architects of improvisation and how are they undertaken on behalf of the organization? Note that this responds to the discussion on the '*organizationalness*' of improvisation especially because it is mostly undertaken by individuals (as is also evident in the findings). The next chapter is thus devoted to answering this related inquiry.

## 7. ANALYSIS: NARRATIVES OF INDIVIDUAL POSITIONALITY IN USING IMPROVISATION TO REALIZE ORGANIZATIONAL GOALS

**Question:** *How do individual and collective level attributes come together in the enactment of improvisation to make organizations effective in extreme environments?*

**Answer:** *Through Three Narratives<sup>46</sup> of Individual Agency in Realizing Organizational Goals*

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Making organizations effective in extreme environments through the *buffering* or *connection-seeking effects* of improvisation is anchored on various attributes that affect its enactment process. In Chapter 2, extensive discussions were provided on various individual and collective level attributes that come into play as improvisation is undertaken. Examples of organization-level attributes such as structure, process, and culture can shape improvisation (Batista et al., 2016; Moorman & Miner, 1998a; Vera & Crossan, 2005). Likewise, studies regarding the individual cognition, skills, and knowledge of those who undertake improvisation are also present in the literature (A. W. King & Ranft, 2001; Rankin et al., 2013; Roux-Dufort & Vidaillet, 2003; Webb et al., 1999). To an extent, the literature is also not scant with studies that identify both attributes at the same time, and in turn highlight the importance of identifying the attributes and exploring their implications at both levels equally (Chelariu et al., 2002; Vera & Crossan, 2004; Wachtendorf, 2004; Weick, 1998).

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<sup>46</sup> See Chapter 0 '**Error! Reference source not found.**' on page 93 for a discussion of 'process narratives' as an analytical approach for this dissertation



All these studies provide a foundation for taking a step forward in the analysis that demonstrates how improvisation can bring about make organizations effective, i.e. realize their organizational goals. Note that much of the prior analysis on the *improvisation-outcome* implies an active process of enacting. Hence, analyzing the process does not only entail a description and theorizing about how each of the identified effects occur, but also who acts on them. Indeed, while the findings presented in Part II (see Chapters 0 and 0) provide different examples of improvisation that are enacted in various levels (interpersonally or individually), most of the examples of improvisation that were considered instrumental bringing about the *buffering* or the *connection-seeking* effects where enacted at the level of the individual organizational member. Examples of these abound in both *Case 1* and *Case 2*, including rule-bending and rule-creating process improvisation, expanding role improvisation, and a few examples of resource improvisation that provided innovative solutions.

It is therefore argued in this dissertation that, analyzing the process by which improvisation makes organizations effective entails equal accounting for two things: (a) ascertaining whether improvisation plays a purposive role in making organizations effective, and (b) who makes it happen for the organization. The first part was discussed in detail in the previous chapter (Chapter 0). Meanwhile, the second part will be addressed in this chapter.

This argument is ultimately substantiated by the observations from the findings in both cases. Particularly, as demonstrated in Part II (see Chapters 0 and 0), improvisation occurs at the intersection of goals established by the organization, and the presence of

dilemmas to obtaining those goals (where the dilemmas arise from the shock). This is further highlighted in both Figure 9 and Figure 10 (see Chapter 0), where improvisation, as an action, serves to buffer or seek a connection with the established goals of the organization.

Further to this point, related inquiries arise naturally – who makes it happen? Is it necessarily the organization that enables it? Or is it merely the individual? Noting that some of the examples highlighted in findings are initiated by the individuals, to what extent are their decisions to improvise individual or organizational? Moreover, given that individuals bring with them certain attributes, how do these attributes figure in the collective level attributes of the organization? There are attributes that the individual organizational members bring with them, yet at the same time there are also collective level attributes at the level of the organization that can bind the action of the individual organizational members. How these two relate to one another can ultimately shape the manner in which improvisation is enacted. Ultimately, what this chapter seeks to expound on are the narratives that demonstrate how these two attributes relate to one another in bringing about organizational outcomes based on the findings presented in Part II.

Specifically, three narratives are evident: (a) first, where individual attributes equally complement the organizational-level attributes in bringing about organizational outcomes; (b) second, where the individual attributes emerge stronger than the organizational-level attributes and shape the manner in which improvisation is undertaken; and (c) where the individual attributes abide to the collective level attributes in bringing about organizational outcomes.

## **A. Narrative 1: Complementary Interaction Between Individual and Collective Level Attributes**

The first narrative that emerged from the findings is that where the individual level attributes interact with the collective level attributes in a complementary manner. As discussed in the findings in Part II (Chapters 0 and 0), the individuals who enact improvisation bring about attributes that are unique to their personality, examples of which include skill, knowledge, and personal traits. At the same time, the organization brings in certain attributes that bind the actions of the individuals, and these include, structure and process, among others. In this narrative, there is a complementary interaction between the attributes found at the two levels. That is to say, neither the individual nor the organization plays a more dominant role in directing improvisation.

This type of narrative is especially evident in examples of resource improvisation that involved working out innovative solutions. More specifically, this involves the resource improvisation undertaken by *Arcie (Energy District)* in creating *salanggunting* to re-erect the utility poles in the absence of the boom truck (*Case 1*), as well as the resource improvisation initiated by *Jess (HQ)* in the physical and organizational construction of the makeshift clinic (*Case 2*). From the examples of resource improvisation in both cases, these are identified as those which were most instrumental in realizing the urgent targets of their respective organizations. On the one hand, the resource improvisation initiated in *Case 1* was undertaken to buffer the adjusted operative goal to re-energize the core backbone of the municipalities in their coverage area within 40 days. On the other hand, the physical and organizational construction of a makeshift clinic was undertaken in *Case*

2 to seek a connection with the operative goal to provide quick response and relief to the victims of the typhoon, which is aligned with the organization's official goal to provide security to the state and its people.

In both examples, both the organization and the individual are seen to be equally interacting with one another to make the organization effective. Where the organization provides the mandate, the individual considers various solutions that are not necessarily within the immediate scope of the organization, but could help propel the organization into realizing their goal. These dynamics can be expounded on by reviewing the attributes present at each level and how they interact with one another. Table 21 below provides a snapshot of the attributes present in both cases.

Attributes	Role in <i>Case 1</i>	Role in <i>Case 2</i>
<u>Collective</u>		
▪ <b>Structure</b>	Provides improvisational rights	Provides improvisational rights
▪ <b>Process</b>	Guiding script to base new action	Guiding script to base new action
▪ <b>Culture</b>	Affirms structure	Affirms the individual approach to process and structure
<u>Individual</u>		
▪ <b>Knowledge</b>	Prompts individuals to consider different actions	Prompts individuals to consider different actions to solve the problem
▪ <b>Skill</b>	Helps individuals translate ideas to actionable outputs	Helps individuals translate ideas to actionable outputs
▪ <b>Personal traits</b>	Provides conviction for individuals to act accordingly	Provides conviction for individuals to act accordingly

**Table 21: Roles of Collective-level and Individual-level Attributes in Resource Improvisation (Narrative 1)**

The presence of these attributes confirms what is already established in the literature (M. P. Cunha et al., 1999; Hadida et al., 2015; Miner et al., 2001; Vera & Crossan, 2005). Beyond that, the identified attributes are further analyzed according to how they interact with one another as improvisation is enacted. The manifestations of interaction

specific to the resource improvisation undertaken in both cases are presented in Table 22 below.

Salient Episodes of Process Leading to Improvisation	Case 1– Manifestations of Interaction	Case 2– Manifestations of Interaction
<p><u>EPISODE 1: PROVISION OF FIELD MANDATE</u></p> <p>Organization (Org) provides mandate through representative structures – individuals (Ind) act on it</p>	<p><b>(Org)</b> Larry, decision-maker of <i>Energy District</i>, (who represents organizational structure) disseminates 40-day mandate, delegates tasks and encourages exercise of discretion (i.e. ‘diskarte’) regarding how the action would be undertaken.</p> <p><b>(Ind)</b> Arcie is on the receiving end of the task, accepts the task.</p>	<p><b>(Org)</b> The organization is tasked to provide quick response and immediate relief on the field. Mandates are provided to personnel deployed either by appointment of duties, or my natural authority due to rank. In this case, the individual member has mandate and authority through rank.</p> <p><b>(Ind)</b> Jess (HQ) is on the receiving end of the task, accepts the task, and exercises his authority.</p>
<p><u>EPISODE 2: DETECTION OF CONFLICT</u></p> <p>(Org) provides process templates for action – (Ind) detects likely conflict with achieving target organizational outcome</p>	<p><b>(Org)</b> is constrained by resources in the re-erection of the utility poles. Process for procurement is present in order to obtain the necessary resources.</p> <p><b>(Ind)</b> Arcie, alongside other organizational members raise the problem of not having the luxury of time to go through the process.</p>	<p><b>(Org)</b> enters the field with all the resources necessary, but finds that space constraints do not allow them to use the resources. Explicit process is not in place for this kind of situation.</p> <p><b>(Ind)</b> Jess recognizes the absence of explicit plan to address the situation.</p>
<p><u>EPISODE 3: CONSIDERATIONS FOR ACTION</u></p> <p>(Ind) brings in knowledge to provide new solutions – (Org) affirms through provision of ‘improvisational rights’ through structure</p>	<p><b>(Ind)</b> Arcie articulates an idea to use an alternative technology used by the ‘olden people’, asserts his knowledge of how it was previously done.</p> <p><b>(Org)</b> Larry affirms the knowledge of Arcie, saying ‘that is your discretion, just make sure you achieve it’.</p>	<p><b>(Ind)</b> Jess articulates knowledge from experience on the field to address the constraint of the organization.</p> <p><b>(Org)</b> The structure is affirmed through the hierarchical authority that the military naturally possesses, considering that</p>

Salient Episodes of Process Leading to Improvisation	Case 1– Manifestations of Interaction	Case 2– Manifestations of Interaction
		he is the most senior officer within the unit.
<p><u>EPISODE 4:</u> <u>IMPROVISATION AS SOLUTION TO CONFLICT</u></p> <p>(Ind) brings in skills to make the idea for improvisation actionable – (Org) reinforces a culture of empowerment</p>	<p><b>(Ind)</b> Arcie gets to it, teaches his team how to make the <i>salanggunting</i>, and uses it to work on the re-erection of the poles for the first few days until external help and resources came.</p> <p><b>(Org)</b> The action by the individual finds itself supported in a climate of empowerment, a culture encouraged at the organization by the decision-maker.</p>	<p><b>(Ind)</b> Jess exercises his authority to undertake improvisation, uses his negotiating skills to harness a team effort to physically construct a makeshift clinic, and at the same time create a working organizational system to complement the makeshift clinic.</p> <p><b>(Org)</b> The action by the individual is supported and affirmed by a culture that espouses unconventional thinking to overcome issues that hinder the accomplishment of mission.</p>

**Table 22: Manifestations of Interaction between Collective Level and Individual Level Attributes in Resource Improvisation undertaken by Case 1 and Case 2 – Narrative 1**

Table 22 tries to capture how the attributes at the level of the individual (marked as ‘Ind’) and the level of the organization (marked as ‘Org’) occur together by highlighting the salient episodes from a process that led to the act of improvisation. Particularly, there are four main episodes: (1) the provision of field mandate, (2) the detection of conflict, (3) considerations for action given the conflict, and (4) improvisation as solution to the conflict. Note that these episodes correspond to Phase 3 in the general frameworks presented in Chapter 0 (see Figure 9 and Figure 10) when the goals have already been disconnected, or their link with the action plan have otherwise been weakened as a result of the shock. In each episode, there is an apparent 1:1 interaction occurring between the individual and the organizational attributes. That is to say, for every organizational

attribute manifesting itself, there is an individual attribute that complements it, and the other way around.

The interesting observation in this narrative is that as the organization provides a mandate that is supposed to be bound within certain structures and processes, the individual also asserts its positionality by engaging in a complementary action. These actions do not come about as a result of a one-way mandate flowing from the organization, while the individual organizational members act on the receiving end. Instead, the individuals are in an active process of sense-making and meaning-making in relation to how the organizational level attributes such as structure and process fit with the corresponding context that they are operating in. As the context becomes induced with an element shock, which in turn result in constraints, the organizational members bring in their individual attributes in order to come up with an action. The resulting action, i.e. resource improvisation in this case, is an innovative solution that arises conjointly from this complementary interaction between the attributes inherent in the individual as well as the attributes inherent in the organization.

For example, the creation of *salanggunting* in *Case 1* as an alternative technology to re-erect the utility poles in the absence of boom trucks solidified as a result of individual attributes of knowledge and skill that could detect conflict of existing organizational attributes, while at the same time produce alternative actions without necessarily meaning to overstep the boundaries set by the organization. The same was true for the physical construction and organizational set up of a system that corresponds to the makeshift clinic seen in *Case 2*. While the ideas and actions of the individual

organizational members produce a strong manifestation of the individual attributes, these are exercised within the parameters set by the organization. The individual makes sense, and enacts solutions, while the organization sets the parameters, provides the mandates, and where applicable, affirms the action. This balanced, and two-way interaction between the attributes housed in the individual and the attributes that define the organization is interpreted as a *complementary interaction*. Relative to this analysis, a proposed conceptualization of the *complementary interaction* is provided below:

**Inference 3:** The realization of goals through improvisation can be a result of a *complementary interaction* between attributes at the individual and the organizational level, where the said attributes at each level equally highlight the positionality of the individual as well as the organizational boundaries in enacting improvisation to bring about organizational outcomes.

As far as the observations show, this narrative of complementary interaction imply some patterns related to (a) the profile of the individual, (b) the general conditions that surround the organization, and (c) the type of improvisation that is likely to be exercised in such a situation.

First, the emergent profile of the individual highlights very specific knowledge and skills. In both examples shown from both cases, the individuals who initiated the idea of using resource improvisation as a solution share similarities in terms of knowledge and skills. Both individuals had extensive experience in various capacities within their respective organization. This enabled them to work under various managements, and it has also exposed them to different techniques and ways of working. Indeed, *Arcie (Energy*



*District*) had been with the organization for more than 20 years, as had been *Jess (HQ)*, and each of them have been rotated around the organization. Another observation is that the amount of time allowed the individuals to consciously and subconsciously amass knowledge on the historical evolution of routines and exercises of the organization. For example, when *Arcie* was asked how he came to suggest the solution, he emphasized that if it were up to him, he would have preferred a '*high technology*'<sup>47</sup> solution. However, since there was none, he mentioned that he knew a practice that people from '*the olden days*' used to undertake. Incidentally, he had been with the organization since it started in the 1980s on a temporary contract, and he had been exposed to different techniques. None of his colleagues had been around the organization for as long as he had been, and while he emphasizes that using *salanggunting* was already practiced before to re-erect poles made of wood, pitching the idea to the organization was unheard of.

Meanwhile, when *Jess (HQ)* opened up about the actions he initiated to accomplish the mission of the organization while they were on the field, he constantly reverted to his experience on the field, drawing on the best practices he knows of, and trying to see which aspects might be applied to the current situation. In the literature on improvisation, knowledge and experience are argued to be important enablers of improvisation (Kamoche et al., 2003; Rankin et al., 2013; Vera & Crossan, 2005). This narrative, in turn, more specifically articulates a specific type of knowledge that the individuals espouse to enable improvisation to occur, i.e. historical knowledge of the organization. Relative to this analysis, the following inference is put forth:

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<sup>47</sup> By '*high technology*', *Arcie* meant aid of machines such as boom truck. Instead, they had to resort to an analog, force-of-man approach.

**Inference 3.A.1:** The profile of the individuals who allow for the complementary interaction to occur is characterized as having historical knowledge of the organization, which results from years of experience in different capacities and exposure to different organizational routines and best practices.

In relation to possessing historical knowledge of the organization, another crucial aspect is the ability of the individuals to articulate their knowledge, which in turn accounted for the mobilization of action. Indeed, Weick, Sutcliffe, and Obstfeld (2005) argue that knowledge accruing from the iterative process of sense-making does not necessarily translate to action. Such knowledge must be communicated, as it is foremost an *'issue of language, talk, and communication'* (Weick et al., 2005b). The data corpus shows that such *'issue of language, talk, and communication'* is largely determined by the degree of clout that the individual organizational members possess, resulting in large part from possession of historical knowledge.

The data corpus shows that all the employees deployed on the field possess a level of various knowledge manifestations that reinforce domain and task oriented specialties. However, those that possess a deeper and wider historical knowledge of the organization happen to be those who articulate their knowledge and pitch it to the organization. For example, when asked if somebody else thought of the same idea, or if the idea is widely known across the organization, they mention that it is likely that someone in the organization knows about it, or might have heard about it. The only difference is that those who have deeper historical knowledge of the organization might be the ones who would actually pitch the idea for reasons that their respective supervisors acknowledge

their experience and value the input they may have. This afforded them some clout in articulating their ideas. They further attribute historical knowledge of the organization as accruing from the time and experience that the individual has in the organization, which somehow resembles the thought that they have grown with the organization.

Indeed, *Arcie* emphasized that the solution he thought of was a solution of the ‘olden people’ and followed it up with him having experienced the ways ‘olden people’. Meanwhile, *Jess* emphasized being ‘used to different missions in combats’, and he was the most experienced among the group, which is why even though he has not seen a catastrophe as huge as super typhoon Haiyan, mentioning that he has ‘*not seen anything like it in [his] 27 years of service*’, he was able to think of something and pitch it to the group. To this end, it is inferred in this dissertation that individuals who possess historical knowledge of the organization are likely to articulate their knowledge in order to mobilize action. The following is thus inferred:

<p><b><u>Inference 3.A.2:</u></b> Following Inference 3.A.1, individuals with historical knowledge of the organization based on experience and exposure, also likely afford them a sense of clout to articulate their knowledge that could in turn mobilize action.</p>
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Another set of inferences that emerge from the analysis provided above relates to the general conditions surrounding the organization, including selected collective level attributes, which allow for the narrative of complementary interaction to occur. Particularly, there are two main aspects that surfaced from the analysis: (a) the importance of organizational structure, and (b) the extent to which the perceived conflict

or absence of pre-established processes would affect the ability of the organization to realize its goals.

First, the analysis reinforces the argument that organizational structure is a determinant factor in enabling improvisation through '*improvisational rights*' (Batista et al., 2016; K. Weber & Glynn, 2006; Weick, 1993, 1998). What is particularly striking in the narrative of complementary interaction, however, is that the structure validates the action of the individuals. This is particularly evident in Episodes 3 and 4 expounded in Table 22. When the individual organizational member articulates their knowledge to provide a likely solution to the challenge, the organization reinforces this action through the structure. The structure is either represented by the decision-maker, or is represented by invisible controls through a mandate provided by the institution prior to the entry of the field personnel to the field. For example, when *Arcie* pitched his idea to use a *salanggunting*, *Larry*, the general manager of *Energy District* validated his action.

Meanwhile, when *Jess (HQ)* initiated the construction of a makeshift clinic, there was a reinforcement of his authority to undertake the action because of a mandate he was given by his supervisor to provide quick response. Upon entering the field, he was the officer with the highest rank in the unit, and he was carrying a mandate provided by someone who represented a high rank in the organization (i.e. representing the institutional level). In both cases, the improvisation initiated by the individuals was validated by the organizational structure. Hence, the following inference is provided relative to one of the conditioning factors that bring about the narrative of complementary interaction:

<p><b><u>Inference 3.B.1:</u></b> In a narrative of complementary interaction, organizational structure validates the improvisation initiated by the individuals.</p>
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Another aspect emerging from the analysis in relation to the organizational conditions that enable a narrative of complementary interaction concerns the question 'how does the conflict or absence of pre-established processes affect the ability of the organization to achieve its goal?' Note that the findings in both cases reinforce the role of pre-established processes in enabling improvisation. Pre-established processes are defined in the literature as guiding scripts for improvisation (Kendra & Wachtendorf, 2003; Weick, 1998).

The findings of this work show two possibilities. On the one hand, if the process is elaborately laid out and detailed, there is a likelihood that it comes into conflict with the sustenance of organizational goals. If this is the case, then pre-established processes can become a script from which actions will be based on, and later deviate from. On the other hand, if the process is less elaborate, there is a likelihood that no specific processes are immediately applicable for the situation and the responders have to exercise a degree of flexibility in considering certain actions. If this is the case, then the absence of an immediately applicable process can become a signal for undertaking improvised actions to address the current situation. As far as the findings show, there are various ways in which the conflict or otherwise the absence of a process can affect the ability of the organizations to realize its goals. In this narrative, particularly, the conflict or absence of process is not prolonged. There is a point at which the process will eventually be

reconciled with the goals of the organization. The conflict or absence of the process does not threaten the organization's ability to realize its goals altogether. Instead, it threatens the organization's ability to realize its goals in a timely and effective manner.

For example, the initiative of *Arcie* to use *salanggunting* was a temporary solution while the organization was waiting for external help to arrive. There was an option to stick with the existing processes, but that would have meant delays in the original 40-day tall order to re-energize the municipalities under their coverage. It would set the organization back by days or weeks considering that external help came one week later if they just waited it out and stuck with the process, but it did not mean they would not meet the goals of the organization altogether.

Another example is that of *Jess (HQ)*. In principle, there was also an option for them to continue working with just a bare minimum construction of a makeshift clinic – the space would have sufficed to allow them to undertake their duties. However, the system encouraged by the military officer, i.e. a space that resembles the clinic, with an organizational system to complement the state of the clinic, was something that allowed the team to be more efficient in carrying out their respective duties. It created order amidst the chaotic situation – as *Jess (HQ)* remarked in the narrative from the field, '*our space*], *we cannot be a disaster here*' – there were latrines, cleanliness was imposed, space for the doctors to rest was created, and this in turn helped them '*conserve themselves*' and become more effective in their respective duties. On that note, a narrative of complementary interaction surfaces in a situation where the conflict or absence of process does not altogether threaten the ability of the organization to realize

its goals. Instead, the conflict or absence of process surfaces the opportunity for individuals to initiate ideas that can make the organization more realize its goals in a timely, more organized manner. The following argument is thus put forth:

**Inference 3.B.2:** In a narrative of complementary interaction, conflict or absence of pre-established processes with organizational goals can imply delays or ineffectiveness in the realization of goals. Individual organizational members, in turn, consider this as an opportunity to initiate actions, i.e. improvisation, to avoid the delays and become effective.

Finally, as mentioned above, there is a specific kind of improvisation that is likely to be exercised in the narrative of complementary interaction, i.e. resource improvisation. This inference takes root from the argument that the narrative of complementary interaction surfaces a two-way exchange between the individual and the organizational level attributes. Looking at the examples of resource improvisation highlighted in this dissertation, they are initiated by the individuals as a response to the challenges perceived at the organizational level. However, while the individuals assert their positionality, they are bound by certain organizational level attributes. There are no rules being deviated from to make the organization adjust radically to accommodate the initiatives for improvisation of the individual. Instead, the organization nurtures and affirms the creative capacity of the individuals to suggest a course of action to make the organization effective. Hence, a narrative of complementary interaction between the individual and organizational level attributes is inferred as providing a space for creation and reconfiguring already existing resources to bring about an organizational outcome. To this end, the following inference is put forth:

<p><b>Inference 3.C:</b> The kind of improvisation that is likely exercised in a narrative of complementary interaction between individual and collective level attributes is resource improvisation.</p>
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## **B. Narrative 2: Individual Attributes Maneuvering Collective Level Attributes**

Another emergent narrative of interaction shows a much more pronounced role of the individual level attributes than the collective level attributes in bringing about organizational outcomes. As discussed in Part II, there have been instances where the individuals took the lead in undertaking improvised actions, which sometimes implied rule-bending or rule-creating actions. This narrative was especially evident among the examples of process improvisation. In *Case 1*, examples include the following: when decision-makers of both *Water District* and *Energy District* personalized the process to source cash, when the decision-maker of *Town Hospital* engaged the foreign medical practitioners, when the decision-maker of *Energy District* transformed the headquarters as a safe space for the employees and created a system to motivate the employees to continuous work, and finally, when the decision-maker of *Energy District* initiated a rent-to-own schema for the transformers to help expedite the recovery process of the businesses. Meanwhile, in *Case 2*, examples of process improvisation include the brokering of a system to access contingent resources, and improvising the relief system and operations on ground zero (*HQ*). Another example also includes shortcutting the authorization process for the procurement of goods (*Telecom*) – which by anecdotes from Chapter 6 allow an initial inference of the dominant role played by the individual engineers in shortcutting the process. However, as this example did not afford the



opportunity to interact with the actual individuals, a more detailed analysis of the attributes at play in this particular example cannot be provided below. Instead, focus will be given on examples of process improvisation where firsthand data was obtained from the individuals themselves.

These examples surface a common narrative where the individual takes a lead role in maneuvering the actions, to the extent that certain attributes at the organizational level have to be drastically adjusted. In this narrative, particularly, the individual level attributes dominate over the organizational level attributes for the purpose of controlling and adjusting certain organizational level attributes that risk the organization's overall ability to realize its goals. Table 23 highlights the attributes found at both levels, and the respective roles they played as improvisation is enacted in both cases.

Attributes	Role in <i>Case 1</i>	Role in <i>Case 2</i>
<u>Collective</u>		
▪ <b>Structure</b>	Asserted by the individual to justify the action (also improvisational rights)	Asserted by the individual to justify the action (also improvisational rights)
▪ <b>Process</b>	Signals the need for new action, where new action initiated by the individual is either rule-bending or rule-creating	Signals the need for new action, where new action initiated by the individual is either rule-bending or rule-creating
▪ <b>Culture</b>	(not strongly present)	Supports the perception of the individual regarding his/her action
<u>Individual</u>		
▪ <b>Knowledge</b>	Prompts individuals to consider various actions	Prompts individuals to consider various actions
▪ <b>Skill</b>	Prompts individuals to translate ideas into actionable output	Prompts individuals to translate ideas into actionable output
▪ <b>Personal traits</b>	Drives individual choices for actions	Drives individual choices for actions

Table 23: Roles of Content Attributes in *Case 1* and *Case 2* (Narrative 2)

As mentioned previously, this narrative surfaces the strong role of the individual organizational members who assert the attributes unique to them, i.e. knowledge, skills, and personal traits. While the organizational attributes, i.e. structure and process, persist, they are adjusted according to how the individuals perceive it would best and most effectively allow them to realize their goals.

These attributes are seen to be interacting with one another, and a deeper analysis of the case findings show a more active role of the individual. The narrative highlights that in every episode leading to the act of improvisation, certain attributes of the individuals became significant in maneuvering towards the targeted organizational outcomes, almost to a point where the organizational level attributes are also adjusted to favor the role of the individual. The narrative of maneuvering further highlights improvisation that implies rule-bending or rule-creating initiatives. Table 24 below provides a summary of how the interaction between the individual and collective level attributes are manifested in the narrative.

Salient Episodes Of Process Leading To Improvisation	Case 1 – Manifestations Of Interaction	Case 2 – Manifestations Of Interaction
<b><u>EPISODE 1:</u></b> <b><u>PROVISION OF FIELD MANDATE</u></b> Organization (Org) provides mandate through representative structures – individuals (Ind) are on the receiving end.	<b>(Org)</b> Each organization is provided a mandate ensure continuous provision of service: <ul style="list-style-type: none"> <li>▪ <i>Water District</i> has mandate from the government to make sure water is sanitary and water interruption is kept minimal.</li> <li>▪ <i>Town Hospital</i> has mandate from the government and by law that hospitals have to be continuously rendering medical service.</li> </ul>	<b>(Org)</b> Each organization enters the field with a mandate. <ul style="list-style-type: none"> <li>▪ <i>HQ</i> is mandated to manage the relief operations in central locations.</li> <li>▪ <i>Telco</i> is mandated to restore network connectivity, and to provide alternative</li> </ul>

Salient Episodes Of Process Leading To Improvisation	Case 1 – Manifestations Of Interaction	Case 2 – Manifestations Of Interaction
	<ul style="list-style-type: none"> <li>▪ <i>Energy District</i> has mandate from the government and the National Electrification Administration to restore within 40 days.</li> </ul> <p><b>(Ind)</b> Decision-makers are at the receiving end of the mandate. They are particularly accountable to ensure that the goals are met.</p> <ul style="list-style-type: none"> <li>▪ <i>Water District</i> is represented by <i>Roger</i>, the general manager, where he receives the mandate provided by the organization</li> <li>▪ <i>Town Hospital</i> is represented by <i>Mary</i>, the Chief of Hospital, where she receives the mandate provided by the organization</li> <li>▪ <i>Energy District</i> is represented by <i>Larry</i>, the General Manager, where he receives the mandate provided by the organization</li> </ul>	<p>opportunities for the victims to communicate.</p> <p><b>(Ind)</b> High ranking officers or experienced personnel are at the receiving end. They also assert their position of authority in making sure that the mandates are achieved, i.e. that goals are realized.</p> <ul style="list-style-type: none"> <li>▪ <i>HQ</i> is represented by high ranking military officials, one of whom is provided a mandate as ‘ground commander at airport grounds’, and the other is provided a mandate to lead medical relief among a team of junior officers.</li> <li>▪ <i>Telco</i> is represented by experienced engineers.</li> </ul>
<p><b><u>EPISODE 2:</u></b> <b><u>DETECTION OF CONFLICT</u></b> (Ind) assesses whether processes exist or not, and also detects whether existing conflicts exist. Where there is a conflict detected, (Ind) assert position of authority through the structure.</p>	<p><b>(Ind)</b> Decision-makers look inward to the organization and assess whether existing processes can help them realize the organizational mandate, or whether they otherwise need to create new one. At the same time, <b>(Ind)</b> asserts position of authority in taking the lead for action.</p> <ul style="list-style-type: none"> <li>▪ <i>Roger</i> and <i>Larry</i> recognize the importance of employee turnout because the nature of the task demanded workforce. Incentives and workforce motivation have to be accounted for. The damages they incurred set them back in terms of availability of resources, which in turn produced</li> </ul>	<p>(Ind) Decision-makers assess the extent to which existing processes can help them realize their goals. In case they detect an absence of any likely regulation or process applicable or explicitly laid out for the purpose of addressing the situation, they start to consider what actions may be undertaken, including the possibility of creating a new process. <b>(Ind)</b> asserts position of authority in taking the lead for action.</p> <ul style="list-style-type: none"> <li>▪ <i>Troy (HQ)</i> ground</li> </ul>

Salient Episodes Of Process Leading To Improvisation	Case 1 – Manifestations Of Interaction	Case 2 – Manifestations Of Interaction
	<p>procedural constraint.</p> <p>In response to the constraint, both decision-makers asserted their position of authority to do something about their challenges. Their position of authority predisposed them to action.</p> <ul style="list-style-type: none"> <li>▪ <i>Mary</i> could not make the doctors and the nurses come to work, and was left to make do with the lean workforce she had in the hospital. She recognized the peak of exhaustion and she had a decision to make whether to close the hospital down or engage the foreign medical practitioners. The latter was going to help them realize their goals but it was in conflict with existing processes.</li> </ul> <p>In response to the challenge, the decision-maker asserted her position of authority, which implied accountability and responsibility. This position of also predisposed her to action.</p>	<p>commander makes sense of the situation and recognizes the need to create a system for relief operations</p> <ul style="list-style-type: none"> <li>▪ <i>Jess (HQ)</i> makes sense of the situation and recognizes the need to create an organizational system for accessing contingent resources</li> <li>▪ <i>Telco</i> engineers makes sense of the situation and recognize time critical actions that cannot accommodate long authorization process.</li> </ul>
<p><b><u>EPISODE 3: CONSIDERATIONS FOR ACTION</u></b></p> <p>(Ind) brings in knowledge and skills to help account for the kinds of action that may be undertaken to realize the goals of the organization. Actions may be rule-creating or rule-bending.</p>	<p><b>(Ind)</b> Decision-makers tap their previous experience and knowledge of the organizational processes to assess the extent to which they can adjust the existing regulations.</p> <ul style="list-style-type: none"> <li>▪ <i>Roger</i> brings in knowledge of the COA procedures</li> <li>▪ <i>Mary</i> brings in knowledge of the regulation and the law, and also asserts untapped provision on ‘emergencies and disasters’</li> <li>▪ <i>Larry</i> brings in knowledge of the COA procedures and subsidy procedures.</li> </ul>	<p><b>(Ind)</b> Decision-makers and middle managers tap knowledge of the organizational processes. Where organizational processes are not present, they tap previous experience to recreate a similar approach that could be used to address the situation.</p> <ul style="list-style-type: none"> <li>▪ <i>Troy</i> and <i>Jess</i> bring in specialized experience in combats and other extreme calamities</li> <li>▪ <i>Telco</i> experienced</li> </ul>

Salient Episodes Of Process Leading To Improvisation	Case 1 – Manifestations Of Interaction	Case 2 – Manifestations Of Interaction
		engineers bring in knowledge and experience in addressing disasters
<b>EPISODE 4: IMPROVISATION AS SOLUTION</b> (Ind) brings in personal traits to decide whether to go ahead with rule-creating or rule-bending process improvisation.	<b>(Ind)</b> Decision-makers recognize that the best course of action can entail rule-bending or rule-creating process improvisation. There is some risk they assume, and their decision to whether undertake or forego the action is shaped heavily by their personal traits and convictions.	<b>(Ind)</b> All decision-makers recognize that the best course of action entail rule-creating process improvisation. There is some risk they assume, and their decision to whether undertake or forego the action is shaped heavily by their personal traits and conviction.

**Table 24: Manifestations of Interaction between Collective Level and Individual Level Attributes in Resource Improvisation undertaken by Case 1 and Case 2 – Narrative 2**

As shown in Table 24, every episode highlights the active role of the individual (marked as 'Ind'), where they bring with them specific attributes that subdues to an extent the organizational level attributes. In this narrative, particularly, the role of the organization (marked 'Org') is mostly apparent in episode 1, where specific mandates are provided, or 'tall orders' are given. These are provided to individuals with a certain level of authority, who at the same time, represent those who are able to lead the entire organization into action. Hence, as soon as tall orders are provided, the individuals at the receiving end become legitimate representatives of the organizational structure, and this in turn allows them to assert their authority or 'improvisational rights' to undertake action. From thereon, the individuals take the lead in identifying potential solutions for the benefit of the organization. As explained above, these actions oftentimes entail the need to either bend or create new rules for the organization. This interaction that highlights an orientation towards the individual attributes more than the organizational

attributes is interpreted as *individually-maneuvered interaction*. Relative to this analysis, a proposed conceptualization of the *individually-maneuvered interaction* is provided below:

**Inference 4:** The realization of goals through improvisation can be a result of an *individually-maneuvered interaction*, where the attributes at the individual level dominate, control, and where applicable, adjust the attributes at the organizational level in enacting improvisation to bring about organizational outcomes.

An important implication from the analysis concerns the profile of the individuals that are likely to bring about a narrative of *individually-maneuvered interaction*. The analysis from the case findings consistently demonstrates three important characteristics of the individual: first, the position of authority of the individual; second, the nature of knowledge they possess given their position of authority; and third, how strongly they assert their personal traits in undertaking their respective duties.

As far as the first characteristic is concerned, all of the individuals in this narrative represent a certain position of authority, which is either provided by mandate, or which is inherent in their respective positions within the organizational hierarchy. For example, all the individuals at the receiving end of the organizational mandate were at least at the level of supervisor and up. All the individuals involved in this narrative within *Case 1* are decision-makers represented by chief of hospital, and the respective general managers of the two other organizations. The chief of hospital manages the day to day operations of the organization as well as calls decisions that need to be undertaken with respect to the strategic aspects of the rural hospital. Likewise, the general managers of both the energy and the water district also manage the day-to-day operations of their respective

organization, and makes decisions regarding the strategic aspects of their organization. These strategic aspects concern revenue generation and effective provision of water and energy services, and effective and quality healthcare provision. Despite their respective positions of authority, they are still accountable to the institutional level which their respective organizations/offices belong to. For example, both *Water District* and *Energy District* are government owned and controlled corporations (GOCCs), while *Town Hospital* is a government hospital, so the hierarchy of reporting and accountability does not end at the respective levels of the individual decision-makers. Meanwhile, in *Case 2*, the position of authority is either derived from a mandate provided by the institution, or naturally occurs from the hierarchical representations of the individuals. For example, the position of authority of *Troy* as ground commander of *HQ* came through an appointment from the second-highest organizational official in the military, i.e. the Secretary of Defense<sup>48</sup>. The rest of the individuals who enacted improvisation assumed position of authority within the teams they were deployed to on the basis of seniority. This was, for example, the case of *Jess (HQ)* based in the medical reliefs unit, who happened to be the senior military officer among the group, and could in turn broker with other units. Relative to this analysis, the following inference regarding the authority profile of the individuals is argued:

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<sup>48</sup> The highest organizational official of the military is the Chief of Staff, which is the President of the Philippines.

**Inference 4.A.1:** The profile of individuals who likely allow for the individually-maneuvered interaction is characterized as having formal positions of authority, which results from formal mandates provided by the high officials of the organization, or are derived from the hierarchy of seniority.

Another emergent observation in relation to the profile of individuals in this narrative relates to the kind of knowledge that they possess to see the actions through. All the individuals display base knowledge of the organization, as well as task and domain related knowledge, all of which have accrued from their previous experience and training. However, an added knowledge that is not easily available to others includes knowledge of processes. These processes include those that pervade vertical and horizontal procedures of the organization as a whole, and not just within a certain domain area, which many other specialists from the organization can possess. This kind of knowledge is afforded mainly to the decision-makers who hold responsibility and accountability for the general functions of the respective organizations they supervise. This therefore implies essential knowledge of the processes of the organization – alongside rules and regulations they have to adhere to. This knowledge also involves a tacit understanding of the boundaries of the process, which played an important role in undertaking rule-bending process improvisation. Meanwhile, where explicit processes in relation to the operative action plan on the field was not in place, i.e. as seen in the findings from *Case 2*, the same knowledge of processes across the organization provided a foundational block in undertaking rule-creating process improvisation. Relative to this analysis, the following is inferred:



**Inference 4.A.2:** Following Inference 4.A.1, individuals who hold positions of authority also hold deep knowledge of processes which pervade horizontally and vertically across the organization, thus allowing them to assess the extent to which such processes could be bent, or otherwise the assess how the creation of new processes could complement existing processes.

Finally, personal traits played a crucial role in shaping the decision of the individual on whether to pursue action or not. Personal traits that include conviction, disposition, and values-bearing of the individual were particularly asserted because the kind of improvisation that they were undertaking entailed some form of rule-bending or rule-creation. As seen in Episode 4 (Table 24), there was an acknowledgement of the risks that the process improvisation could entail – especially because many of them involved working around existing regulations, or were otherwise new. Ultimately, however, the data corpus shows the decision to either forego or go ahead with the rule-bending or rule-creating improvisation was shaped by the personal traits of the individuals. For example, most of the decision-makers used their conviction to justify why they had to resort to rule-bending or rule-creating process improvisation. Some representative anecdotes include the assertion of the informants regarding *‘values as being the sum-total of who you are’*, the orientation of the action is to help and therefore, it *‘can’t go wrong’*, the orientation to service and not being a burden, and the orientation to service and personalizing the responsibility as a leader. To this end, the following is inferred:

**Inference 4.A.3:** The decision to undertake rule-bending or rule-creating process improvisation is shaped by the extent to which individuals with a position of authority articulate their personal traits, which includes personal convictions regarding values and personalization of their responsibility to lead.

Another set of inferences relates to how the organizational level attributes play a role within this narrative. In particular, these inferences emerge from the observations regarding how organizational structure and organizational process conditions the occurrence of the narrative.

As far as structure is concerned, the analysis of the findings surfaces the instance where the boundary between the organizational structure and the individual representative becomes blurred. In most of the examples used to analyze this narrative, all individuals represent a position of authority within the organizational structure, and therefore the actions and the decisions they undertake imply representativeness of the control functions perpetuated by the organizational structure but also without discounting the personality of the individual. In most of the examples, the decision-makers reinforced their decision to pursue an action based on their personal traits, and they in turn use their position of authority to substantiate their action. Some examples of representative anecdotes include assertions from the decision-makers such as *'I only follow the rules when I make them'* (HQ), *'I had to do something about it, I was the Chief, and I needed to help'* (Town Hospital, which also resonates the same assertion from *Water District* and *Energy District*). Another critical observation is that the decision-makers do not have the time to revert to their respective bosses, in considering rule-bending or rule-creating acts

of improvisation. Hence, the personality of the individual becomes more pronounced and becomes a basis for deciding, which in turn gets absorbed within the structure because of the position of authority they possess. To this end, the following is opined:

**Inference 4.B.1:** In the narrative of individually-maneuvered interaction, organizational structure becomes tightly coupled with the individual decision-maker. In this instance, the boundaries of organization become an embodiment of the individual decision-maker provided with a mandate within the span of time and context wherein chaos and constraints arising from the shock are at their peak.

Meanwhile, in relation to organizational process, the analysis is rooted on the absence or existence of pre-established processes. As emphasized in the findings, the two cases highlight two different characteristics of organizational process in relation to responding to the disaster. On the one hand, organizational processes may be strictly defined and standardized prior to the disaster, e.g. *Case 1*, while on the other hand, organizational processes may be general to favor flexibility of action, e.g. *Case 2*. Based on the findings, it was evident that strictly defined and standardized processes can result in a conflict with the ability of the organization to realize its goals, particularly in contexts where the element of shock is massive to the extent that it can cause a disconnection between goals and pre-conceived plan of action. Particularly, in this narrative, this can signal an action that may entail the need to bend certain rules. Meanwhile, flexibility-oriented processes signal the likely necessity to create new rules or processes in order to accommodate a certain action. These likelihoods imply critical implications in relation to the ability of the organization realize its goals. Particularly in this narrative, the conflict or absence of pre-established processes are prolonged, which means that if the organization

does not take any action to address the displacement of process, there is a risk to not realize their goals. Unlike in narrative 1, where non-action results in a delay, in narrative 2, non-action often threatens the effectiveness of the organization. For example, if actions were not undertaken to resolve the workforce turnout of the case observations in *Case 1*, the organizations would lose their core purpose of being in the field, as well as their core purpose for function. Indeed, ensuring water service provision as well as re-energizing the municipalities under the coverage area of the energy district relied heavily on the engagement of the employees. No other organization could assume the same function for them. At the same time, the rural hospital was left with no choice because of the low workforce turnout – if no decision would have been undertaken regarding the engagement of the foreign medical practitioners, the hospital would have to stop functioning. Meanwhile, for *Case 2*, there was an urgent need to address the absence of standardized process – if no decision would have been undertaken, then the decision-makers would risk not acting on the very purpose for being on the field, as well as the very purpose of their organizational function. For example, the ground commander of *HQ* was left on his mandate to ensure that processes and systems are established in relation to managing the chaos, while the engineers of *Telco* had to take a decision to fulfill their mission of restoring the network connectivity. All of the actions tied to the conflict or absence of processes were time critical and also very much tied with the ability of the organization to realize its goals. Relative to this analysis, therefore, the following is argued:

**Inference 4.B.2:** In the narrative of individually-maneuvered interaction, conflict or pre-established processes with organizational goals can threaten the overall ability of the organization to realize its goals. Individual organizational members, in turn, have to quickly come to a decision in relation to the action that should be undertaken, in order to preserve organizational effectiveness.

Finally, analysis of the findings also surfaces an argument in relation to the kind of improvisation likely to be occurring in this narrative. Note that the nature of improvisation that needs to be undertaken in this narrative implies rule-bending or rule-creating initiatives. To this end, there is a specific profile of individuals that can maneuver this kind of interaction, i.e. those who hold a position of authority. On a related note, the findings also show that individuals with a position of authority oftentimes find themselves in a situation where certain aspects of the organization need to be adjusted in order to accommodate the goals that their respective organizations want to realize. A specific organizational aspect in favor of organizational effectiveness is the process, i.e. where they are pre-established, they need to be adjusted, and where they are not pre-established, they are created. Acts of process improvisation that are either rule-bending or rule-creating are thus argued to be an example of improvisation that is mostly occurring in this narrative. To this end, the following is argued:

**Inference 4.C:** The kind of improvisation most likely exercised in the narrative of individually-maneuvered interaction between the individual and collective level attributes is process improvisation.

### C. Narrative 3: Individual Attributes Abiding by Collective Level Attributes

A final narrative that emerged consistently across the findings from *Case 1*<sup>49</sup> is one where the collective level attributes played a more dominant role, which in turn the individual organizational members found themselves complying with or abiding with as they undertook acts of improvisation. In other words, this narrative highlights acts of improvisation, which while enacted and initiated by the individual, result from compliance of the individuals to organizational prerogatives in certain attributes including structure and process.

The prominent examples of improvisation which relate to this narrative include acts of role-extending and role-expanding types of improvisation. For the purpose of enabling a deeper analysis of the interaction between the individual and the organizational level attributes, focus is given on the examples that allow us to recount the perspective of the individual. This includes two specific examples: the role-expanding examples of *Eli*, the administrative assistant who turned engineering aide in *Water District*, and *Anna*, the hospital cook turned dietician in *Town Hospital*. Both examples particularly surface a narrative where the individuals are compelled to undertake role improvisation as a means of abiding by the mandates provided to them by the organization. The role that attributes at the level of the organization and the individual played in this narrative are highlighted in the table below.

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<sup>49</sup> Recall that role extension and role expansion were not present in *Case 2* as discussed in Part II.

Attributes	Role in <i>Case 1</i>	Role in <i>Case 2</i>
<u><b>Collective</b></u>		
▪ <b>Structure</b>	Provides the mandate for the individual organizational members by means of delegation of tasks and policies	(Note: no prominent examples of role improvisation seen in <i>Case 2</i> )
▪ <b>Process</b>	Provides a working script for the individual organizational members to follow	
▪ <b>Culture</b>	(not strongly present)	
<u><b>Individual</b></u>		
▪ <b>Knowledge</b>	Prompts individuals to consider various actions	(Note: no prominent examples of role improvisation seen in <i>Case 2</i> )
▪ <b>Skill</b>	Prompts individuals to translate ideas into actionable output	
▪ <b>Personal traits</b>	Prompts individuals to revert back to the organization and assess whether they are abiding or not	

Table 25: Roles of Content Attributes in *Case 1* and *Case 2* (Narrative 3)

Note that this narrative was mostly evident in *Case 1*. There were no prominent examples of role improvisation seen in *Case 2*. Moreover, there were no prominent instances detected in *Case 2* where the individuals undertook improvisation as a means of complying with the organizational prerogatives. As such, the content attributes are analyzed using the examples related to *Case 1*.

How the attributes interact with one another is expounded more closely by highlighting the salient episodes of the process that led to the act of improvisation, which is summarized in Table 26 below.

Salient Episodes of Process Leading to Improvisation	Case 1 – Manifestations of Interaction	Case 2 – Manifestations of Interaction
<p><b><u>EPISODE 1: PROVISION OF FIELD MANDATE</u></b>  Organization (Org) provides mandate and processes to guide the response and engagement of the employees.</p> <p>Individuals (Ind) are at the receiving end.</p>	<p>In both examples, attributes at the organizational level are reinforced prior and during the typhoon, with emphasis on structure and processes.</p> <ul style="list-style-type: none"> <li>▪ <i>Water District</i> provides mandate to ensure continuity of water service by means of delegation of tasks that follows a hierarchical reporting system. Moreover, process is put in place regarding action plan for responding to the disaster.</li> <li>▪ <i>Town Hospital</i> reinforces the mandate to ensure continuous rendition of service in disaster events. Employees are mandated to be around by government regulation.</li> </ul> <p>(Ind) in turn follow these mandates and delegation of tasks.</p>	(No examples found)
<p><b><u>EPISODE 2: DETECTION OF CONFLICT</u></b>  Organization (Org) as represented by the structure recognizes the constraints to sustenance of goals, while the (Ind) is made aware of such constraints.</p>	<p>In both examples, the conflict is detected at the level of the organization, which is represented by their respective decision-makers or supervisors.</p> <ul style="list-style-type: none"> <li>▪ <i>Roger (Water District decision-maker)</i> detects the problem of workforce constraint. The administrative assistant is informed that the engineering team to be deployed to fix the broken pipe does not have enough workforce.</li> <li>▪ <i>Mary (Town Hospital Decision-maker)</i> recognizes the constraint of workforce. The cook is made aware that the dietician is not around.</li> </ul>	
<p><b><u>EPISODE 3: CONSIDERATIONS FOR ACTION</u></b>  (Org) reinforces the mandate through structure as represented by policy and task</p>	<ul style="list-style-type: none"> <li>▪ <i>Water District</i> reinforces the mandate to ensure continuous water provision, and the administrative assistant (Ind) interprets this as an organizational order that needs to be complied with.</li> <li>▪ <i>Town Hospital</i> emphasizes the need to continue operations, as evidenced by</li> </ul>	



Salient Episodes of Process Leading to Improvisation	Case 1 – Manifestations of Interaction	Case 2 – Manifestations of Interaction
delegation.  (Ind) is at the receiving end, acknowledges the need to abide by the policy.	the high involvement of the decision-maker. The cook acknowledges the need to be around and do something because it is 'policy'.	
<b><u>EPISODE 4:</u></b> <b><u>IMPROVISATION AS SOLUTION</u></b> (Ind) brings in knowledge and skills to undertake role improvisation, in compliance with the mandate of the (Org).  (Ind) personal trait seeks (org) validation regarding action undertaken.	<ul style="list-style-type: none"> <li>▪ <i>Eli</i> brings in formal and informal training and experience to make sure he undertakes the task provided to him in good virtue. After assuming the role of an engineering aide, he goes back to the organization (represented by the decision-maker) to seek validation of his work.</li> <li>▪ <i>Anna</i> brings in experience to make sure she can continuously act on the mandates provided by the hospital. Every action undertaken at this point in assuming the role of a dietician is also reported and validated with the organization.</li> </ul>	

**Table 26: Manifestations of Interaction between Collective Level and Individual Level Attributes – Narrative 3**

Table 26 above illustrates that in every episode leading to the role improvisation, the individual enacts the action but always with a constant reference to the organization. Every action that the individual undertakes in relation to the role improvisation constantly seeks the validation or appraisal of the organization – as was evidenced by the administrative assistant who emphasized that he willingly helped and would take the initiative, but 'needed the organization to tell [him] whether [he] was doing it right or wrong'. The same is true for the cook-turned-dietician, who mentioned that she kept on coordinating with the chief of hospital to check whether what she was doing was right or

wrong. Hence, in this narrative, an interaction that is oriented towards abiding by the organizational attributes is observed. This is interpreted in this dissertation as *organizational-abiding interaction*, where the individuals who undertake improvisation defer to the organization. In more ways than one, all acts of improvisation in this narrative highlight the compliance of the individual actors to organizational prerogatives. That is to say, improvisation becomes a result of individuals who find themselves in a position of needing to abide by organizational mandate and orienting their actions towards the prerogatives of the organization. Following this analysis, the following conceptualization of the *organizational-abiding narrative* is proposed:

**Inference 5:** The realization of goals through improvisation can be a result of an *organizational-abiding interaction* between the attributes at the individual and organizational level, where the individual attributes emerge to favor compliance with the organizational attributes.

Complementary to this inference, the analysis of the findings also highlights some implications regarding (a) the profile of the individuals likely to be involved this narrative, (b) the general conditions that surround the organization, and finally, (c) the type of improvisation that is likely to be exercised in such a situation.

As far as the profile of the individuals is concerned, those who undertook forms of expanding role improvisation were mostly employees who abide by certain policies. Their bargaining clout is not as high as to be able to actively pitch more creative solutions to the resource constraints of the organization, similar to what occurred in narrative 1, or otherwise initiate rule-bending or rule-creating types of solutions similar to what occurred

in narrative 2. Instead, the constraints are absorbed by the individual, where their resort of action is to actively show up to work and do their best to comply with the tasks provided to them. To this end, the following is inferred:

**Inference 5.A.1:** The profile of the individuals likely to be involved in organization-abiding narrative involves those whose position in the organizational hierarchy is not as high, and their bargaining clout relative to the organization is low.

On a related note, given that the bargaining clout is low, when the individual organizational members are compelled to comply with the organizational prerogatives to realize specific goals, the individuals have to use their knowledge as foundational blocks to undertake the action. As far as the findings show, the knowledge that they display are specific to their respective fields, i.e. the administrative training of the administrative assistant and the task-specific training of the cook. Thus, when they are predisposed to undertake role expanding improvisation, they are effectively stepping out of their existing role and outside of their usual knowledge or task specialties. To this end, they have to cull through their respective knowledge base which can include personal or professional experience.

For example, the administrative-assistant-turned-engineering-aide referred to his experience in childhood helping out his father with more physical tasks as well as his professional experience in attempting to venture in small entrepreneurial opportunities. On the other hand, the cook-turned-dietician tapped her years of experience working with various dieticians and had to recall the actions of the dietician. In more ways than one, the

knowledge base of the individuals in this narrative became critical in shaping role improvisation as a means of abiding by the organizational prerogative. However, the knowledge base is always constantly guided or validated by a decision-maker. Relative to this analysis, the following is inferred:

**Inference 5.A.2:** The individuals in this narrative possess general knowledge accrued from their respective personal and professional experience, which in turn become a foundational block for undertaking improvisation.

A final point on the individual profile relates to the way in which personal traits figure in this narrative is different from the two other narratives in that traits here are oriented towards complying with organizational prerogatives. Indeed, both examples highlighted how each individual felt compelled to follow organizational policies. More than wanting to help, which was an evident motivation in the two other narratives, the individuals in this narrative emphasized that ‘it was policy’, or ‘they were asked to do it’, or ‘who else would do it?’ Hence, the manifestation of personal traits in this narrative is interpreted as shaping individual action to abide by the organizational prerogatives. The following is inferred:

**Inference 5.A.3:** In the narrative of organization-abiding interaction, the personal traits of the individuals are oriented towards abiding by organizational prerogatives, which in turn predispose the individuals to keep seeking the validation of the organization regarding the acts of improvisation that they undertake.

Another inference in relation to this narrative is put forth – particularly, one that provides suggestions regarding the contextual conditions that surround the organization.

As far as analysis of the findings show, organizational structure was an important attribute that the individuals referred to as they undertook improvisation. It was specifically evident in both examples that the structure asserts a certain distance between the individual and the decision-maker, which in turn became a reference point for the individuals as they undertook improvisation. This is almost reminiscent of a 'follow the organization' approach, except that the individuals are not totally subservient to the organization in that the organization dictates the action. Rather, the individuals enact a form of improvisation with consistent guidance and validation from the organization. Relative to this analysis, therefore, the following is inferred:

**Inference 5.B:** Organizational structure is asserted in a way that there is a wide hierarchical distance between the organization and the individual, which in turn compels the individuals to ensure that every act of improvisation undertaken results from constant guidance and validation of the organization.

Finally, based on the analysis of the findings, a very particular type of improvisation is emerging from this narrative, i.e. role expanding improvisation. This is not to argue that role improvisation is the only likely type of improvisation that can be exercised in this narrative. Instead, attention must be drawn to the characteristics in which improvisation is exercised: is it done as a way to comply with organizational policy? Is it undertaken as a means of following organizational prerogatives? Most role improvisation detected in the findings from *Case 1* – whether they are extending or expanding – seem to fit this inference. Hence, role improvisation is considered as an

example of improvisation that is likely to emerge from this narrative. On that note, the following is suggested:

**Inference 5.C:** The kind of improvisation most likely exercised in the narrative of organizational-abiding interaction between the individual and collective level attributes are those undertaken as a way to comply with the organizational prerogatives. These can include role expanding improvisation, or otherwise role extending improvisation.

#### **D. Contribution to the Cross-Analytical Theorization of Improvisation towards Realization of Organizational Goals**

**Purpose-driven improvisation occurs as a result of the interaction between individual and collective level attributes.**

The literature points to various levels at which organizational improvisation are enacted, ranging between individual, interpersonal, or organization-wide enactment. As discussed previously, these are often explored singularly at the levels where they occur, and the literature has yet to be populated with studies that explore a cross-level analysis of how levels cross from one level to another (Hadida et al., 2015). The findings of this dissertation demonstrate that, indeed, the enactment of improvisation and their likely effects is not strictly confined at one level. Instead, they can cross levels, particularly between the level of the individual and the organization, which mostly results from various types of interaction that occur between the attributes in each level. The analysis above highlights how certain types of improvisation exhibit a particular narrative that shows the interaction between the individual and organizational level attributes in

bringing about outcomes. The analysis provided in this chapter is aimed at potential contributions to theory and praxis.

Theoretically, the resulting analysis regarding the narratives of interaction between the individual and the organizational attributes draws from the study of organizations that are oriented towards a processual view of 'organizing'. More specifically, improvisation is conceptually angled in this dissertation as an action that is directed towards bringing about organizational outcomes, and as an action, this chapter highlights an interaction between the attributes found at the levels of the individual and the organization.

Through the narratives, it was possible to show that improvisation is an action that results in the constant interplay of attributes between the individual and the organization. Indeed, the analysis demonstrates that individual organizational members are constantly making sense of the context, the constraints, and the prerogatives and mandates of the organization. Meanwhile, the attributes of the organization can find itself positioned across three possibilities during disaster events: supporting and providing boundaries to the suggested solutions of the individual organizational members (i.e. narrative 1), being shaped directly and maneuvered by the individual organizational members (i.e. narrative 2), or instilling a sense of mandate so that individual organizational members could comply with organizational prerogatives (i.e. narrative 3).

By looking at the micro-processes that account for improvisation, the resulting analysis feeds into the scholarly dialogue on sense-making (Maitlis, 2005; K. Weber & Glynn, 2006; Weick, 1993; Weick et al., 2005b), which in turn help explicate how such process informs the way in which organizations arrive at a specific outcome. Note that the

primary intention for this analysis was to highlight the role of the individual organizational members in bringing about organizational outcomes, i.e. how the individual organizational members enact improvisation for the purpose of realizing organization-wide goals. As recurrently reiterated across the dissertation, organizationally-situated improvisation is often discussed with scarce attention on the way that the individual agents enact improvisation on behalf of the organization. This was thus seen as an opportunity to explore how micro-level processes and attributes carried by the individual agents are brought to the macro-level outcomes of the organization. Instead of looking at how the organization and its attached institutions shape the way in which individuals undertake improvisation, the motivation of this dissertation was to explore how the individual makes sense of and brings along unique attributes to enact action. What was revealed and reinforced in the analysis of the findings, however, is that that individual agency does not completely enact improvisation separately from the organization it belongs to.

Theoretically, the findings confirm the perspective put forth regarding the constant interplay between sense-making and institutions, where individuals 'make sense with institutions, not in spite of them' (K. Weber & Glynn, 2006). In the theoretical assertion of Weber and Glynn (2006), they raise the point that sense-making theory and institutional theory are not disparate, but rather complementary. They further argue that there is no uni-directional link from individual sense-making to inform how institutions are shaped, or how institutions bound sense-making and the resulting action of the individual. Instead, the two are constantly shaping one another. To this end, they showed how institutions are woven into sense-making via three modes of priming, editing, and triggering. These three



modes are brought to light by the manner in which the narratives in this dissertation flourished. For example, each narrative is reminiscent of how individual organizational members actively make sense of the context is operating in, with due consideration of institutions purported by the organization. The analysis of the narratives thus contributes to the perspective of interaction between the institutions purported by the organization and how the individual organizational members make sense of the situation in a process of bringing about action.

Another theoretical implication resulting from the analysis refers to the process approach whereby micro-processes are linked with macro-outcomes. Within the literature on improvisation, there has been a call to see the process by which various levels are linked with one another in enacting improvisation on behalf of the organization (Hadida et al., 2015). Areas related to improvisation such as sense-making processes also recognize the need to explore the link between micro and macro levels (Maitlis, 2005; K. Weber & Glynn, 2006; Weick et al., 2005b). From a wider perspective in the study of management and organizations, there is an emerging interest in how the micro-concepts emanating from the individual can bring about organizational outcomes. This approach is presently termed the 'micro-foundations project' which is currently positioned within the scholarly discussions of behavioral strategy (Felin, Foss, Heimeriks, & Madsen, 2012; Felin, Foss, & Ployhart, 2015; Foss & Lindenberg, 2013; Jansen & Chappin, 2015; Villar & Miralles, 2015). The narratives show various contexts in which individual attributes are highlighted to bring about certain organizational outcomes – and as such, this study demonstrates how micro-attributes can result in macro-outcomes. Moreover, it also shows various contexts

wherein certain micro-attributes brought by the individuals might play a complementary (narrative 1), maneuvering (narrative 2), or an abiding (narrative 3) role relative to bringing about macro-level outcomes.

## **E. Chapter Summary**

This chapter put forth the findings regarding the process by which various examples of improvisation are ‘architected’ as a result of interactions between individual and organizational level attributes. This was undertaken by highlighting narratives of individual agency in realizing organizational goals. Particularly, three narratives emerged to show the process by which individuals bring about organizational effectiveness. These narratives highlight factors regarding the individual profile, the contextual conditions of the organization, as well as examples of improvisation that are likely to occur in each narrative. Salient points regarding the analysis of each narrative are provided below:

1. Narrative 1 demonstrates a *complementary interaction* (see Inference 3) between the individual attributes and the organizational attributes, in which the role played at each level occur in an equal 1:1 ratio of interaction. That is to say, both the individuals and the organization equally shape the way in which improvisation is used as a means to realize the goals of the organization.

Within this narrative, the following has been found:

- a. The profile of the individuals who bring about this kind of narrative are those that exhibit deep historical knowledge of the processes and routines of the organization, as well as those who possess high

bargaining clout with the organizational decision-makers to help articulate their knowledge.

- b. In this narrative, organizational structure serves to validate the improvisation initiated by the individuals. In this case, structure is upheld by representatives at the levels of the decision-makers or the institution.
- c. Moreover, conflict or absence of pre-established processes with the organizational goals can imply delays or ineffectiveness. As a result, individuals consider this as an opportunity to initiate actions in order to avoid delays and become effective in realizing the goals of the organization.
- d. Lastly, the kind of improvisation mostly seen in this kind of narrative are resource improvisation that entails high level of creativity and innovativeness.

2. Narrative 2 demonstrates an *individually-maneuvered interaction* (see Inference 4), where the individual attributes dominate, control, and where applicable, adjust the attributes at the organizational level in order to enact improvisation. Within this narrative, the following are inferred:

- a. The profile of individuals enacting improvisation within this narrative are characterized as having formal positions of authority, which results from formal mandates provided by the high officials of the organization (at the level of the institution), or are derived from the hierarchy of

seniority. These individuals also hold deep knowledge of processes that pervade horizontally and vertically across the organization, which in turn allow them to assess the extent to which such processes could be bent, or how new processes could be created to complement existing ones. Finally, personal traits are also crucial characteristics of the individual, as they serve as a trigger in deciding whether to undertake rule-bending or rule-creating types of improvisation.

- b. In this narrative, the organizational structure is tightly coupled with the personality of the individual, to the extent that the decision-makers are the representatives of the organizational structure itself, which in turn validate the actions of the individual.
  - c. Meanwhile, conflict of pre-established processes with the organizational goals can threaten the overall ability of the organization to realize its goals. This is a precedent for the individuals to quickly come to a decision in relation to the action that should be undertaken.
  - d. Examples of improvisation likely to occur in this narrative are rule-bending or rule-creating types of process improvisation.
3. Finally, narrative 3 demonstrates an *organizational-abiding interaction* (see Inference 5), where the individual attributes emerge to favor compliance or to abide with the organizational attributes. In this narrative, the following are inferred:

- a. The profile of the individual likely to be involved in this narrative are those whose position in the organizational hierarchy is not high, thus resulting in a low bargaining clout relative to the organization. As a result, the decision to improvise is a result of the necessity to comply with the organizational prerogatives. Moreover, the type of knowledge that the individuals in this narrative possess are general and accrued from their respective personal and professional experience. Such knowledge is found to be a foundational block for undertaking improvisation.
- b. In this narrative, organizational structure pervades a wide hierarchical distance between the organization and the individual, which in turn compels the individuals to ensure that every act of improvisation results from constant guidance and validation of the organization.
- c. Finally, examples of improvisation that are most likely exercised in this narrative include role-expanding or role-extending improvisation, which are motivated by the need to comply with organizational prerogatives.

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These inferences have both theoretical and practical implications. Theoretically, the analysis is poised within the scholarly discussions on processual view of organizing, particularly in extreme contexts. Specifically, it tackles the process by which organizations are able to realize their goals through improvisation, which ultimately are architected by individual organizational

members. What was found, in particular, is that there is an interaction emerging between the individual and the organization in shaping improvisation as an organizing process in disaster environments – and one cannot be taken in isolation of the other. Ultimately, such analysis demonstrates the plausibility and importance of looking at how micro-processes can be linked with organizational outcomes, which has otherwise been advocated for in related areas of sense-making and neo-institutional theory, as well as the present discussions on micro-foundations project in behavioral strategy.

Meanwhile, in more applied contexts, the analysis presented in this chapter draws on specific considerations for flexible organizing in extreme environments. Particularly, the narratives highlight considerations beyond the existence of scripts or templates, but also individual profiles, as well as contextual conditions that can enable the use of improvisation as means to realize the goals of the organization.

In the following chapters (Part IV), conclusions are made by highlighting the main contributions of this research in the body of knowledge within organization and management studies, as well as relative to the identified gaps in the study of improvisation. Limitations as well as prospects for further research are also presented.

## PART IV: CONCLUSIONS AND THE WAY FORWARD

*'11) Tightness of improv[isation] with goals (precedent to improve is having a principle of sustaining the goals)*

*Improv is actually purpose-driven!!!*

*11) But why do they improvise? To uphold their goals.*

*How? Through ind[ividual] and collective NARRATIVES'*

*-From author's notes of her research diary, Volume 5 (PhD), no date*

The quotation above is culled from the fifth volume of my research diary, when I was in the iterative process of analysis<sup>50</sup>. The idea that improvisation is purpose-driven was first articulated in that diary entry, and began to resurface as I began writing Parts II and III of this dissertation.

This part goes back to that note I wrote in the diary, as a takeoff point for the final conclusions of this work, including an articulation of the overall contribution, reflections on limitations, and prospects for future research. The idea for this dissertation began with a simple motivational inquiry: if organizations are predisposed to improvisation, and improvisation is an emergent action that is untested through time, how do we know that improvisation will not lead organizations to do more harm than good? This inquiry was later firmed up in the literature review with view to conceptualizations of the meaning of improvisation, effects of improvisation (including 'the dark side of improvisation'), the enablers of improvisation, and the perceived outcomes of improvisation. The initial

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<sup>50</sup> Looking back at the notes, there was no specific date when it was written. However, judging from the other entries, the notes coincided with the time that I spent summer in LSE taking qualitative methods class in 2015.

question thus evolved to a scholarly inquiry on how improvisation makes organization effective as a result of the interaction between individual and collective level attributes that enable improvisation.

Through a reflexive analysis of two cases presented in Part III, the research inquiry of this dissertation was addressed, and the specific theoretical contributions were articulated. This part brings together all the specific parts of this dissertation into one coherent story, where the core contributions to both theory and praxis are summarized, limitations are acknowledged, and prospects for future work are articulated. It particularly comes full circle with the initial probing framework, as a post-probing framework is presented regarding a process model of how improvisation makes organizations effective.



## 8. CONCLUSION

This dissertation began with an anecdote from the interview conducted with one of the informants on the field regarding the almost impossible task of re-erecting 40-footer concrete utility poles without a boom truck. With a smile, he answered ‘magic’. This anecdote is a critical representation of the underlying motivation in this dissertation: to understand what is magic, and unpack how magic was undertaken. Ultimately, making ‘magic’ happen was akin to various organizing processes that allow organizations to realize their goals in environments characterized by uncertainty, shock, and complexity.

Deeper exploration of the actions that occurred on the field revealed that ‘magic’ was essentially an act of improvisation, which pervaded across the two cases during typhoon Haiyan. During the disaster, improvisation became a common resort of action among the organizations that were seeking to realize their respective goals. Improvisation is used in this dissertation as a main point of trajectory from which the main inquiry of this dissertation was established. Particularly, this dissertation inquires – can improvisation make organizations realize their goals, i.e. be effective, in extreme environments? Relatedly, since improvisation is oftentimes enacted by individual organizational members, how do attributes at the individual and collective domains interact with one another in the enactment of improvisation to realize their organizational goals?

A case study approach was used to surface the narratives of organizations with two different profiles. A thorough analysis within and across the two cases enabled inferences to come about relative to the main line of inquiry in this dissertation.

## **A. Summary**

The first main argument arising from this dissertation is that improvisation can bring make organizations effective, i.e. realize their goals. As a result, the evidence in this dissertation allows for the argument that improvisation can be linked with organizational goals. This argument opens up a discussion on how improvisation relates to organizational goals among organizations that operate in disaster environments. It specifically provides insights on how organizations with clear goals use improvisation as a conscious and meaningful solution to attain their purposes. As such, despite the spontaneity of improvisation, it does not necessarily mean they are accidental, stop-gap solutions. Rather, the core inference in this dissertation is that improvisation can be purpose-driven. As far as the cases demonstrate, improvisation can be a conscious mechanism used by organizations to realize organizational goals, through what are conceptualized as (a) *buffering effect* and (b) *connection-seeking effect*. This has theoretical implications regarding the inclusion of improvisation in the framework for organizational goals as a means to buffer shocks or otherwise seek a connection with the official goals of the organization.

The second main argument relates to the narratives of interaction between individual and organizational-level attributes that shape improvisation. Given that

improvisation is an action that is conceptualized and executed at the same time, it was only logical to postulate the role of individuals as architects of improvisation. How these individuals are positioned within the overall act of organizing at the level of the organization is a point of inquiry that is logically connected with the previous inquiry. To this end, a related endeavor of this dissertation was to understand how improvisation is architected to bring about goal sustenance. Who enacts it? It was found in this dissertation that architecting improvisation towards goal sustenance is a result of interaction between attributes at the level of the individual and the organization. To this end, three particular narratives of interaction allows for an inference on how improvisation comes about as a means to realize goals: (a) the narrative of complementary interaction, (b) the narrative of rule-bending interaction, and (c) the narrative of rule-abiding interaction among the individual and collective level attributes of improvisation.

Certain inferences are put forth with respect to the said two main arguments. The inferences particularly address the gaps in the probing framework presented in Chapter 2 (see Figure 7), and are in turn revised to reflect the findings from the dissertation (see Figure 11). Ultimately, this work has implications for both theory and praxis. As far as theory is concerned, the dissertation advances case evidence to confirm that improvisation can be linked to a specific organizational outcome. As such, it can be argued that improvisation is not simply a stop-gap solution but can also be a conscious and meaningful action directed towards a specific outcome.

At the same time, this work sought to address the positionality of the individual in making organizations effective. To understand how improvisation can bring about organizational outcome, it is important to look at how attributes of the individual interact with attributes of the organization. Indeed, this work put forth an evidence that individual and organizational level attributes constantly interact with one another, albeit in varying degrees, in extreme environments. Ultimately, this can be considered step further into substantiating the argument that micro-processes lead to macro-outcomes.

At the practical level, organizations that are naturally pre-disposed to extreme environments can benefit from this work. In particular, the findings provide some implications regarding the importance of scripts (or action plans). Improvisation is not necessarily the opposite of scripts, in fact, improvisation is derived from scripts. However, based on the findings, organizations still improvised regardless if they had plans or not. As such, it is not the template or script that sets them back from improvising, but a handful of critical attributes found at both the individual and organizational levels. As a result, organizations may have to look at their process and structural configurations. Meanwhile, as far as individual attributes are concerned, the findings of this work highlight the need to consider attributes beyond knowledge and skill, but also the personal traits of the employees they hire. In the end, this is what may spell the difference for those undertaking improvisation that have organizational effects.

## B. Theoretical and Practical Implications

The analysis and theoretical contributions Part III obliges a revisit to the initial probing framework in Chapter 2 (see Figure 7). Given the analysis, the initial probing framework is revised to reflect the findings in this dissertation (see Figure 11). In contrast to the probing framework, the post-probing framework more explicitly shows the continuity between improvisation and organizational goals (Inference 1). Moreover, the temporal and contextual conditions are also articulated within the space that improvisation is occurring (Inference 2). Finally, the interactions between the individual and the collective level attributes are explicitly concretized (see Inferences 3, 4, and 5).

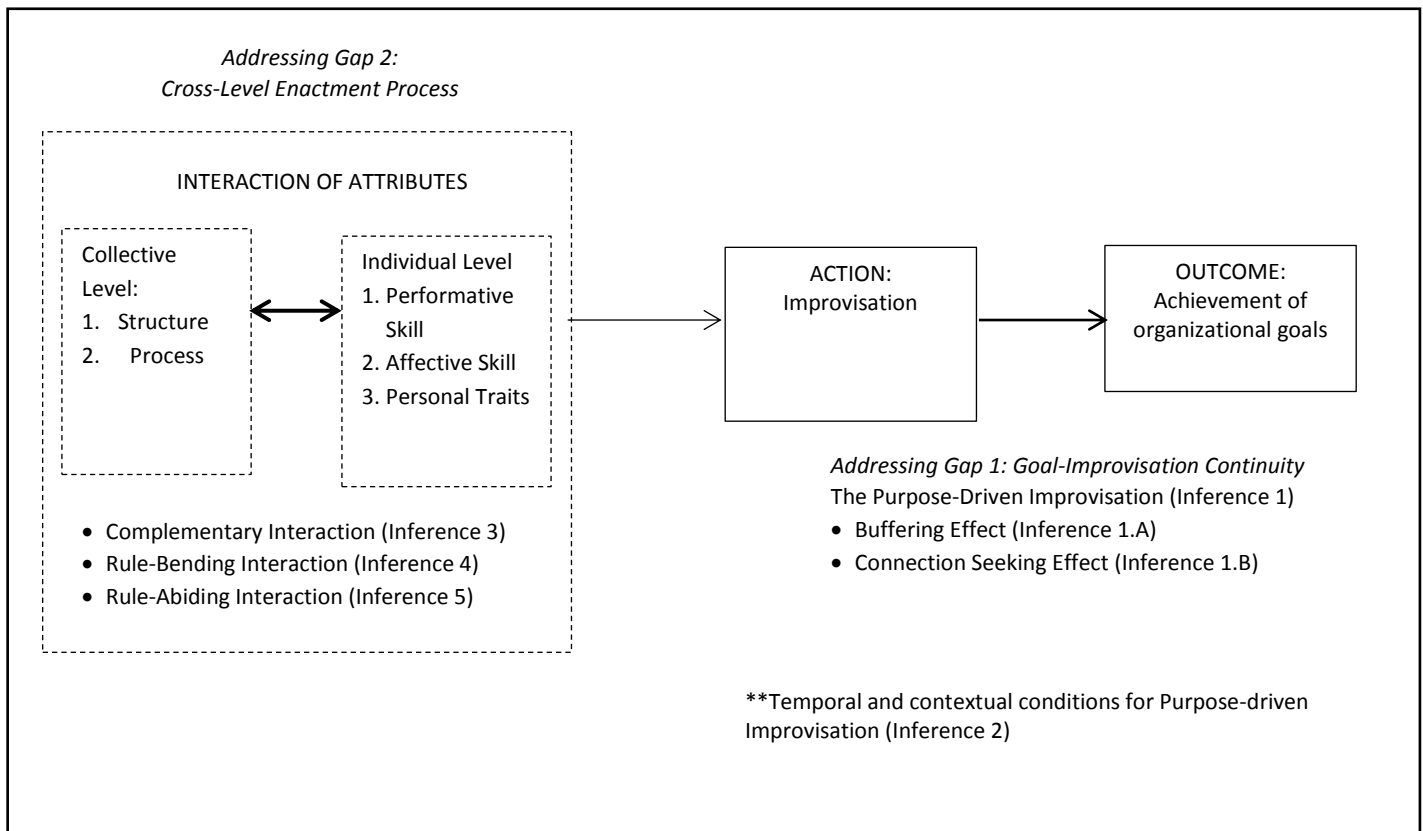


Figure 11: Post-Probing Framework

This framework can, in turn, be used as a step forward in theorizing the process by which improvisation relates to organizational goals, and the various ways in which it is enacted. Further, it can be used as a guiding framework to establish testable hypotheses.

As regards praxis, the findings and analysis in this dissertation is mostly targeted towards organizations that operate in environments that pose similar characteristics that disasters have – fast tempo, uncertain, complex, and turbulent, and more importantly, where urgency and timeliness of action can dictate whether or not the organizations will be able to realize their pre-established operative and official goals. These organizations can be pre-disposed to undertaking improvisation when their existing plans suddenly become disconnected (or otherwise weakened insofar as link is concerned) with their pre-established goals. As asserted earlier, organizations that belong to this group employ improvisation as a thoughtful and meaningful solution towards a specific organizational outcome. Some examples of organizations in the said groups can include the following: fast response organizations dealing with crises and disasters, e.g. military, hospitals, fast responders like police and firefighting organizations; those that may not necessarily be routinely involved in disaster environments but must maintain consistent provision of public goods, e.g. utility companies; and those that function in high risk environments where safety templates are crucial, e.g. aviation, maritime, chemical, and construction industries.

Note that in their best efforts, these organizations go through a process of creating plans that guide action in emergency situations. Some examples of plans include business continuity plans or emergency plans. In best instances, when disasters, emergencies, or

accidents may occur, the plans are followed. However, the field also abounds in examples where plans are not followed, or where they turn into 'fantasy documents' (Kendra & Wachtendorf, 2002; Wachtendorf, 2004). This is sometimes attributed to the failure of structure, in which case the plans start to lose their meaning and responding organizational members become confronted by a 'what now?' situation. In a way, the plans can also canalize the actions of the responding organizational members, in that they become locked in safety templates (Pilbeam, Davidson, Doherty, & Denyer, 2016). When shock is induced in the context where they operate in, whether their plans in place are strictly framed or has flexible orientation, improvisation becomes an inevitable resort of action. Ultimately what the findings and analysis in this dissertation provide is an evidence that regardless of the way in which their plans are configured, improvisation can be used as a strategy to buffer the changes in their operative goals, or otherwise to connect the new actions with their pre-established goals. The findings in this dissertation thus confirm that improvisation is biased towards organizational action, and that action can be a timely response for situations that warrant a sense of urgency. More importantly, improvisation can bring about concrete outcomes for the organization that employ them.

While improvisation can bring about organizational outcomes, this does not occur by default. Just because improvisation is undertaken does not necessarily imply that it will be automatically connected to the sustenance of specific organizational goals. Instead, as demonstrated in both cases, it is important that the goals of the organization, both their purpose of organizational existence (i.e. official goals), and the purpose for their operation on the field (i.e. operative goals) are clearly established. The cases only provide evidence

that improvisation can bring about organizational outcomes if the goals are clearly established. In this case, when organizations ensure that their goals are clearly established, the act of improvisation is undertaken with regard to these goals. In a way, improvisation can become organizational (in the sense that it brings about organizational outcomes) when goals are clearly set by the organization, particularly because those enacting improvisation gravitate towards such goals as a source of certainty. Ultimately, the goals provide a reason for why action is undertaken, and despite the chaos, complexity, and shock in the context they operate in, goals provide a sense of purpose for the organizations. For example, this is evidenced by remarks from the informants such as 'this is what we are mandated to do', 'this is our objective', 'there is a reason we are there'.

On a related note, this work contributes to insights on how to manage organizations that are predisposed to complex and uncertain contexts, i.e. disasters and crises. Relative to this kind of context, there has been an emphasis on organizational flexibility. Considerations for flexibility often include the extent to which scripts or templates should be made available to individuals. As shown in the findings in this dissertation, regardless of the existence of scripts, the point where shock is introduced often predisposes the organization to consider actions that are not necessarily compatible with the script. The question therefore arises - does it make sense to have a script if organizations are going to improvise in the first place? Based on the analysis of the findings in this dissertation, improvisation is not contingent on whether a script exists or not. Improvisation will nevertheless occur as a conscious solution among individual



organizational members who are oriented towards realizing the goals of the organization. More importantly, decisions regarding the extent to which they will undertake improvisation rests on different factors including individual profile and contextual conditions of the organization. As such, it is useful to opine that considerations for flexibility should not only rest on the existence of action plans, but also on the profile of the individual organizational members who are deployed to the field, as well as revisiting what role the organization and its attached institutions can play in confirming, shaping, validating, or triggering actions from the side of the individual in bringing about organizational outcomes.

### **C. Limitations and Directions for Future Research**

Ultimately, this work is not without limitations. The first of these limitations is the data generalizability of the work. This was acknowledged earlier on in Chapter 3 on methodology, stating that the main objective of the dissertation is to provide evidence that can enable the formulation of arguments regarding the theorization process of improvisation and organizational goals. Hence, the generalizability of this work is consciously limited to analytical generalization. This analytical generalization is reflected in the proposal of a post-probing framework that advances two aspects of improvisation and organizational goals: (a) first, the establishment of the process by which improvisation and organizational goals are linked, and (b) second, the establishment of the varying interactions between the individual and collective level attributes in the enactment of purpose-driven improvisation. Moving forward, further research can build on the work to

include more cases to confirm the inferences, and ultimately use them as a basis to formulate testable hypotheses.

Another limitation of this study includes the temporal considerations for long term effects. The scope of this dissertation is limited to a short temporal context from pre-shock to post-shock in the immediate aftermath of the disaster. However, there have been instances when the informants touched on lasting effects of improvisation in their organization. These were not explored in the dissertation as they are already beyond the scope of the work. However, this signals the long term effects of such emergent, unplanned actions to the future configurations of an organization in terms of processes, structures, and ultimately its goals. As such, it is interesting to peer into questions such as how organizations are changed by improvisation, and how does improvisation affect the framing of organizational goals?

A deeper exploration of the attributes, especially at the individual level is also an interesting avenue of research. For example, this dissertation confirms the role of knowledge as a foundational block in undertaking improvisation. However, knowledge that is tacit to an individual, as was the case with the *Arcie (field personnel, Energy District)*, needs to be externalized or communicated to the organizational level in order to produce effects for the organization (Griffin, Shaw, & Stacey, 1999; Nonaka, 2006; Nonaka & von Krogh, 2009; Weick et al., 2005a). On that note, it would be interesting to peer into the process by which knowledge at the individual level is spiraled to the organizational level, and ultimately result in the mobilization of action (Villar & Miralles, 2017). Another interesting vantage point to explore in the future is the implication of the roles of the

individuals on the organization and the institution. This is especially true for *Narrative 3*, which bared examples of rule-breaking improvisation. While the findings of this work showed the process by which such type of improvisation was critical to ensuring that organizations are effective, it did not tackle the effects of such action on the institutional level. For example, in real circumstances, public officials and institutional representatives often attach stigma to rule-breaking, especially in fragile contexts. However, certain fragile contexts merit rule-breaking, and it would thus be interesting to explore more closely the negotiating process that goes into justifying such rule-breaking actions, and where it might or might not be applicable.

How improvisation relates to other literatures is also an interesting point of exploration in the future, which, for purposes of making this dissertation specific and streamlined, has been excluded. For example, the routines literature (Feldman, 2015; Pentland, Brian T.; Feldman, 2005) provides a rich body of knowledge, and opens up how organizational routines relate to emergent actions such as improvisation. Theoretically, routines are scarcely mentioned as a point of discussion in the literature. The common understanding is that improvisation is often a departure from existing plans of action. Weick (1998) mentions that routines can be a source from which an agent alters varying degrees, which can ultimately lead to improvisation. It is thus implied that routines can be considered as a '*guiding script*' which agents can use as a starting point from which they can alter, and ultimately improvise from. In the empirical findings of this dissertation, improvisation was once hinted to be a potential source of routine. This was true for the

*Energy District*<sup>51</sup>, which undertook process improvisation (rent-to-own schemes of transformers to business owners without a precedent), which was eventually routinized and institutionalized. This, however, was only a single point of observation, and only provides a descriptive evidence that may be a basis for further investigation. With this finding, however, it inevitably brings to the fore a potential question that may be dissected in future research: at what point do organizational routines and improvisation begin, or alternatively, are they two sides of the same coin?

Another example of literature that consciously excluded from this dissertation is the inter-organizational literature, which may include coordination, shared vision, and multi-organizational goal-setting in extreme environments. Indeed, focusing on the internal workings of the organization was a conscious decision from my end, in order to address the core objective of the thesis, which is to demonstrate how improvisation brings about the realization of organizational goals. Given that the dissertation provided evidence to substantiate the argument that improvisation, indeed, makes organizations effective as it brings about the realization of organizational goals, it provides a foundation to explore more deeply how such goals may or may not be affected when other organizations enter the picture. Indeed, disaster environments involve multiple organizations, with often conflicting turfs (Hossain & Uddin, 2012; C. Weber, Sailer, & Katzy, 2015; Wolbers & Boersma, 2013; Wolbers, Boersma, & Groenewegen, 2017; Wolbers, Groenewegen, & Boersma, 2017). It would therefore be interesting to explore in the future how improvisation figures in a setting with several independent organizations

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<sup>51</sup> See Table 11: Examples of Improvisation in *Case 1* in Chapter 0 in page 149

with different goals. Indeed, is improvisation a result of conflicting goals from different organizations involved in a disaster setting, or can improvisation forge a way for goals to be aligned?

Finally, the context used for this dissertation is limited to a disaster event that can induce strong elements of shock, which in effect, is more likely to drive organizations to resort to improvisation. However, elements of shock are not only constrained to disaster events. Shock or unexpected scenarios can also be found in hypercompetitive contexts, and even growing and unregulated markets. It would be interesting to see how the post-probing framework put forth in this study can also apply to organizations that do not necessarily work in disaster environments, but in different contexts with similar characteristics driven by novelty and fast tempo, and where there is a strong prerogative for organizations to continuously stay in action.

## REFERENCE

- Alexander, L., & van Knippenberg, D. (2014). Teams in Pursuit of Radical Innovation: A Goal Orientation Perspective. *Academy of Management Review*, 39(4), 423–438. <http://doi.org/10.5465/amr.2012.0044>
- Andrew, S. A., & Kendra, J. M. (2012). An adaptive governance approach to disaster-related behavioural health services. *Disasters*, 36(3), 514–532. <http://doi.org/10.1111/j.1467-7717.2011.01262.x>
- Argote, L., & Greve, H. R. (2007). A Behavioral Theory of the Firm —40 Years and Counting: Introduction and Impact. *Organization Science*, 18(3), 337–349. <http://doi.org/10.1287/orsc.1070.0280>
- Arksey, H., & Knight, P. (1999). *Interviewing for Social Scientists*. SAGE Publications Ltd. 1 Oliver's Yard, 55 City Road, London England EC1Y 1SP United Kingdom: SAGE Publications, Ltd.
- Ashforth, B. E., Rogers, K. M., Pratt, M. G., & Pradies, C. (2014). Ambivalence in Organizations: A Multilevel Approach. *Organization Science*, 25(5), 1453–1478. <http://doi.org/10.1287/orsc.2014.0909>
- Baker, T., Miner, A. S., & Eesley, D. T. (2003). Improvising firms: bricolage, account giving and improvisational competencies in the founding process. *Research Policy*, 32(2), 255–276. [http://doi.org/10.1016/S0048-7333\(02\)00099-9](http://doi.org/10.1016/S0048-7333(02)00099-9)
- Barrett, F. J. (1998). Creativity and Improvisation in Jazz and Organizations: Implications for Organizational Learning. *Organization Science*, 9(5), 605–622. <http://doi.org/10.1287/orsc.9.5.605>
- Batista, M. D. G., Clegg, S., Cunha, M. P., Giustiniano, L., & Rego, A. (2016). Improvising Prescription: Evidence from the Emergency Room. *British Journal of Management*, 27(2), 406–425. <http://doi.org/10.1111/1467-8551.12143>
- Berger, P. L., & Luckmann, T. (1966). The social construction of reality. *Penguin Group*, 249. <http://doi.org/10.2307/323448>
- Bierly, P. E. (1995). Culture and High Reliability Organizations: The Case of the Nuclear Submarine. *Journal of Management*, 21(4), 639–656. <http://doi.org/10.1177/014920639502100403>
- Bigley, G. A., & Roberts, K. H. (2001). The incident command system: High-reliability organizing for complex and volatile task environments. *Academy of Management Journal*, 44(6), 1281–1299. <http://doi.org/10.2307/3069401>
- Blettner, D. P., He, Z.-L., Hu, S., & Bettis, R. A. (2015). Adaptive aspirations and performance heterogeneity: Attention allocation among multiple reference points. *Strategic Management Journal*, 36(7), 987–1005. <http://doi.org/10.1002/smj.2260>

- Boettger, R. D., & Greer, C. R. (1994). On the Wisdom of Rewarding A While Hoping for B. *Organization Science*, 5(4), 569–582. <http://doi.org/10.1287/orsc.5.4.569>
- Borschmann, R., & Moran, P. (2011). Crisis Management in Borderline Personality Disorder. *International Journal of Social Psychiatry*, 57(1), 18–20. <http://doi.org/10.1177/0020764009106599>
- Bourgeois, L. J. (1985). Strategic Goals, Perceived Uncertainty, and Economic Performance in Volatile Environments. *Academy of Management Journal*, 28(3), 548–573. <http://doi.org/10.2307/256113>
- Brown, S. L., & Eisenhardt, K. M. (1997). The Art of Continuous Change: Linking Complexity Theory and Time-Paced Evolution in Relentlessly Shifting Organizations. *Administrative Science Quarterly*, 42(1), 1. <http://doi.org/10.2307/2393807>
- Bruner, J. (1986). *Actual Minds, Possible Worlds*. United States of America: President of Fellows of Harvard College.
- Buchanan, D. A., & Denyer, D. (2013). Researching Tomorrow's Crisis: Methodological Innovations and Wider Implications. *International Journal of Management Reviews*, 15(2), 205–224. <http://doi.org/10.1111/ijmr.12002>
- Chakravarthy, B. S., & Lorange, P. (1991). Adapting Strategic Planning to the Changing Needs of a Business. *Journal of Organizational Change Management*, 4(2), 6–18. <http://doi.org/10.1108/09534819110007110>
- Chelariu, C., Johnston, W. J., & Young, L. (2002). Learning to improvise, improvising to learn: a process of responding to complex environments. *Journal of Business Research*, 55(2), 141–147. [http://doi.org/10.1016/S0148-2963\(00\)00149-1](http://doi.org/10.1016/S0148-2963(00)00149-1)
- Chia, R., Langley, A., & Van De Ven, A. H. (2004). The First Organization Studies Summer Workshop: "Theorizing Process in Organizational Research." *Organization Studies*. <http://doi.org/10.1177/0117084004048605>
- Chughtai, S. (2013). *OXFAM Briefing Note: Typhoon Haiyan - The Response So Far and Vital Lessons for the Philippines Recovery*. Oxford.
- Ciborra, C. U. (1999). Notes on improvisation and time in organizations. *Accounting, Management and Information Technologies*, 9(2), 77–94. [http://doi.org/10.1016/S0959-8022\(99\)00002-8](http://doi.org/10.1016/S0959-8022(99)00002-8)
- Cresswell, J. W. (2009). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. *SAGE Publications*, 35(2), 260. <http://doi.org/10.1017/CBO9781107415324.004>
- Crossan, M. (1998). Improvisation in Action. *Organization Science*, 9(5), 593–599. <http://doi.org/10.1287/orsc.9.5.593>
- Crossan, M., Cunha, M. P., Vera, D., & Cunha, J. (2005). Time and Organizational Improvisation. *Academy of Management Review*, 30(1), 129–145.

<http://doi.org/10.5465/AMR.2005.15281441>

- Crossan, M., & Sorrenti, M. (2002). Making Sense of Improvisation. In K. Kamoche, M. P. Cunha, & J. V. Da Cunha (Eds.), *Organizational Improvisation* (pp. 29–51). London: Routledge.
- Cunha, J., & Cunha, M. P. (2003). Improvisation in Organizations. In *The SAGE Handbook of New Approaches in Management and Organization* (Vol. 33, pp. 385–395). London: SAGE Publications Ltd. <http://doi.org/10.4135/9781849200394.n67>
- Cunha, M. P., Clegg, S. R., & Kamoche, K. (2012). Improvisation as “real time foresight.” *Futures*, 44(3), 265–272. <http://doi.org/10.1016/j.futures.2011.10.009>
- Cunha, M. P., Cunha, J., & Kamoche, K. (1999). Organizational Improvisation: What, When, How and Why. *International Journal of Management Reviews*, 1(3), 299–341. <http://doi.org/10.1111/1468-2370.00017>
- Cunha, M. P., Neves, P., Clegg, S. R., & Rego, A. (2015). Tales of the unexpected: Discussing improvisational learning. *Management Learning*, 46(5), 511–529. <http://doi.org/10.1177/1350507614549121>
- Cyert, R., & March, J. (1963). A behavioral theory of the firm. *Englewood Cliffs, NJ*, 313. <http://doi.org/10.2307/2228147>
- Dayton, B. W., Boin, A., Mitroff, I. I., Alpaslan, M. C., Green, S. E., Kouzmin, A., & Jarman, A. M. G. (2004). Managing Crises in the Twenty-First Century. *International Studies Review*, 6(1), 165–194.
- De Massis, A., Frattini, F., Kotlar, J., & Wright, M. (2015). Organizational Goals: Antecedents, Formation Processes, and Implications for Firm Behavior. *International Journal of Management Reviews*, 17(3), 404–408. <http://doi.org/10.1111/ijmr.12079>
- Drabek, T. E., & McEntire, D. A. (2003). Emergent phenomena and the sociology of disaster: lessons, trends and opportunities from the research literature. *Disaster Prevention and Management: An International Journal*, 12(2), 97–112. <http://doi.org/10.1108/09653560310474214>
- Dyer, W. G., & Wilkins, A. L. (1991). Better Stories, Not Better Constructs, To Generate Better Theory: A Rejoinder to Eisenhardt. *Academy of Management Review*, 16(3), 613–619. <http://doi.org/10.5465/AMR.1991.4279492>
- Dynes, R. R., & Aguirre, B. E. (1979). Organizational Adaptation To Crises: Mechanisms Of Coordination And Structural Change. *Disasters*, 3(1), 71–74. <http://doi.org/10.1111/j.1467-7717.1979.tb00200.x>
- EC-ECHO. (2014). *Typhoon Haiyan - Philippines: Report of the European Commission Humanitarian Aid and Civil Protection*.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: what are they? *Strategic Management Journal*, 21(10–11), 1105–1121. <http://doi.org/10.1002/1097->



- Eisenhardt, K. M., & Tabrizi, B. N. (1995). Accelerating Adaptive Processes: Product Innovation in the Global Computer Industry. *Administrative Science Quarterly*, 40(1), 84. <http://doi.org/10.2307/2393701>
- Ethiraj, S. K., & Levinthal, D. (2009). Hoping for A to Z While Rewarding Only A: Complex Organizations and Multiple Goals. *Organization Science*, 20(1), 4–21. <http://doi.org/10.1287/orsc.1080.0358>
- Etzioni, A. (1960). Two Approaches to Organizational Analysis: A Critique and a Suggestion. *Administrative Science Quarterly*. <http://doi.org/10.2307/2390780>
- Feldman, M. S. (2015). Theory of routine dynamics and connections to strategy as practice. In *Cambridge Handbook of Strategy as Practice, Second Edition* (pp. 317–330). <http://doi.org/10.1017/CCO9781139681032.019>
- Felin, T., Foss, N. J., Heimeriks, K. H., & Madsen, T. L. (2012). Microfoundations of Routines and Capabilities: Individuals, Processes, and Structure. *Journal of Management Studies*, 49(December), 1351–1374. <http://doi.org/10.1111/j.1467-6486.2012.01052.x>
- Felin, T., Foss, N. J., & Ployhart, R. E. (2015). The Microfoundations Movement in Strategy and Organization Theory. *The Academy of Management Annals*, 9(1), 575–632. <http://doi.org/10.1080/19416520.2015.1007651>
- Fiegenbaum, A., Hart, S., & Schendel, D. (1996). Strategic Reference Point Theory. *Strategic Management Journal*, 17, 219–235.
- Flach, L. (2014). Use or Abuse of Improvisation in Organizations? *Creativity and Innovation Management*, 23(4), 374–385. <http://doi.org/10.1111/caim.12087>
- Foss, N. J., & Lindenber. (2013). Microfoundations for Strategy: A Goal-Framing Perspective on the Drivers of Value Creation. *The Academy of Management Perspectives*, 27(2), 85–102.
- Gagné, M. (2018). From Strategy to Action: Transforming Organizational Goals into Organizational Behavior. *International Journal of Management Reviews*, 20, S83–S104. <http://doi.org/10.1111/ijmr.12159>
- Gioia, D. A. (2004). A renaissance self: Prompting personal and professional revitalization. In *Renewing research practice: Scholars' journeys* (pp. 97–114).
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2012). Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology. *Organizational Research Methods*, 16(1), 15–31. <http://doi.org/10.1177/1094428112452151>
- Giustiniano, L., Cunha, M. P., & Clegg, S. (2016a). The dark side of organizational improvisation: Lessons from the sinking of Costa Concordia. *Business Horizons*, 59(2), 223–232. <http://doi.org/10.1016/j.bushor.2015.11.007>

- Giustiniano, L., Cunha, M. P. E., & Clegg, S. (2016b). Organizational zemblanity. *European Management Journal*, 34(1), 7–21. <http://doi.org/10.1016/j.emj.2015.12.001>
- Griffin, D., Shaw, P., & Stacey, R. (1999). Knowing and Acting in Conditions of Uncertainty: A Complexity Perspective. *Systemic Practice and Action Research*, 12(3), 295–309. <http://doi.org/10.1023/A:1022403802302>
- Hadida, A. L., Tarvainen, W., & Rose, J. (2015). Organizational Improvisation: A Consolidating Review and Framework. *International Journal of Management Reviews*, 17(4), 437–459. <http://doi.org/10.1111/ijmr.12047>
- Harrauld, J. R. (2006). Agility and Discipline: Critical Success Factors for Disaster Response. *The ANNALS of the American Academy of Political and Social Science*, 604(1), 256–272. <http://doi.org/10.1177/0002716205285404>
- Herman, R. D., & Renz, D. O. (1997). Multiple constituencies and the social construction of nonprofit organization effectiveness. *Nonprofit and Voluntary Sector Quarterly*, 26(2), 185–206. <http://doi.org/10.1177/0899764097262006>
- Hill, W. (1969). The Goal Formation Process in Complex Organizations. *Journal of Management Studies*, 6(2), 198–208.
- Hodgkinson, I. R., Hughes, P., & Arshad, D. (2016). Strategy development: Driving improvisation in Malaysia. *Journal of World Business*, 51(3), 379–390. <http://doi.org/10.1016/j.jwb.2015.07.002>
- Hossain, L., & Uddin, S. (2012). Design patterns: coordination in complex and dynamic environments. *Disaster Prevention and Management*, 21(3), 336–350. <http://doi.org/10.1108/09653561211234516>
- Hu, S., Blettner, D., & Bettis, R. A. (2011). Adaptive aspirations: performance consequences of risk preferences at extremes and alternative reference groups. *Strategic Management Journal*, 32(13), 1426–1436. <http://doi.org/10.1002/smj.960>
- Hughes, P., Hodgkinson, I. R., Arshad, D., Hughes, M., & Leone, V. (2017). Planning to improvise? The role of reasoning in the strategy process: Evidence from Malaysia. *Asia Pacific Journal of Management*. <http://doi.org/10.1007/s10490-017-9524-1>
- IFRC. (2014). *Philippines: Typhoon Haiyan One-year progress report*. Geneva.
- Jabines, A., & Inventor, J. (2007). *The Philippines: A Climate Hotspot Climate Change Impacts and the Philippines*. Quezon City.
- Jansen, R., & Chappin, M. (2015). Seed Starting the Microfoundations of Strategy: A Butterfly Effect? In *EURAM 2015* (pp. 1–41).
- Kamoche, K., Cunha, M. P., & Cunha, J. (2003). Towards a Theory of Organizational Improvisation: Looking Beyond the Jazz Metaphor. *Journal of Management Studies*, 40(8), 2023–2051. <http://doi.org/10.1046/j.1467-6486.2003.00410.x>

- Kao, J. J. (1997). The art & discipline of business creativity. *Strategy & Leadership*.  
<http://doi.org/10.1108/eb054590>
- Katz, D., & Kahn, R. L. (1978). The Social Psychology of Organizations, 2d ed. In *The Social Psychology of Organizations* (pp. 397–425).
- Kendra, J. M., & Wachtendorf, T. (2002). Creativity in Emergency Response After the World Trade Center Attack. In *9th Annual Conference of the International Emergency Management Society* (pp. 1–16). Waterloo, Canada.
- Kendra, J. M., & Wachtendorf, T. (2003). Elements of Resilience After the World Trade Center Disaster: Reconstituting New York City's Emergency Operations Centre. *Disasters*, 27(1), 37–53. <http://doi.org/10.1111/1467-7717.00218>
- Kendra, J. M., & Wachtendorf, T. (2016). *American Dunkirk: The Waterbourne Evacuation of Manhattan on 9/11* (1 edition). Temple University Press.
- King, A. W., & Ranft, A. L. (2001). Capturing knowledge and knowing through improvisation: what managers can learn from the thoracic surgery board certification process. *Journal of Management*, 27(3), 255–277. [http://doi.org/10.1016/S0149-2063\(01\)00091-5](http://doi.org/10.1016/S0149-2063(01)00091-5)
- King, B. G., Felin, T., & Whetten, D. A. (2010). Finding the Organization in Organization Theory : A Meta-Theory of the Organization as a Social Actor. *Organization Science*, 21(1), 290–305. <http://doi.org/10.1287/orsc.1090.0443>
- Klag, M., & Langley, A. (2013). Approaching the conceptual leap in qualitative research. *International Journal of Management Reviews*, 15(2), 149–166.  
<http://doi.org/10.1111/j.1468-2370.2012.00349.x>
- Langley, A., & Abdallah, C. (2011). Templates and Turns in Qualitative Studies of Strategy and Management. In *Building Methodological Bridges Research Methodology in Strategy and Management* (Vol. 6, pp. 201–235). [http://doi.org/10.1108/S1479-8387\(2011\)0000006007](http://doi.org/10.1108/S1479-8387(2011)0000006007)
- Langley, A., Smallman, C., Tsoukas, H., & Van de Ven, A. H. (2013). Process Studies of Change in Organization and Management: Unveiling Temporality, Activity, and Flow. *Academy of Management Journal*, 56(1), 1–13.  
<http://doi.org/10.5465/amj.2013.4001>
- Lant, T. K. (1992). Aspiration Level Adaptation: An Empirical Exploration. *Management Science*, 38(May), 623–644.
- Larsen, H., & Bogers, M. (2014). Innovation as Improvisation 'In The Shadow.' *Creativity and Innovation Management*, 23(4), 386–399. <http://doi.org/10.1111/caim.12067>
- Leybourne, S. (2007). Improvisation within management: oxymoron, paradox, or legitimate way of achieving? *International Journal of Management Concepts and Philosophy*, 2(3), 224. <http://doi.org/10.1504/IJMCP.2007.014998>

- Leybourne, S., Lynn, G., & Thanning Vendelø, M. (2014). Forms, Metaphors, and Themes: An Introduction to the Special Issue on Organizational Improvisation. *Creativity and Innovation Management*, 23(4), 353–358. <http://doi.org/10.1111/caim.12093>
- Linder, S., & Foss, N. J. (2018). Microfoundations of Organizational Goals: A Review and New Directions for Future Research. *International Journal of Management Reviews*, 20, S39–S62. <http://doi.org/10.1111/ijmr.12154>
- Locke, E. a, & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57(9), 705–717. <http://doi.org/10.1037/0003-066X.57.9.705>
- Lundberg, J., & Rankin, A. (2014). Resilience and vulnerability of small flexible crisis response teams: implications for training and preparation. *Cognition, Technology & Work*, 16(2), 143–155. <http://doi.org/10.1007/s10111-013-0253-z>
- Maitlis, S. (2005). The Social Processes of Organizational Sensemaking. *Academy of Management Journal*, 48(1), 21–49. <http://doi.org/10.5465/AMJ.2005.15993111>
- Marsden, J. (2013). Stigmergic self-organization and the improvisation of Ushahidi. *Cognitive Systems Research*, 21, 52–64. <http://doi.org/10.1016/j.cogsys.2012.06.005>
- Martinez-Moyano, I. J., McCaffrey, D. P., & Oliva, R. (2014). Drift and Adjustment in Organizational Rule Compliance: Explaining the “Regulatory Pendulum” in Financial Markets. *Organization Science*, 25(2), 321–338. <http://doi.org/10.1287/orsc.2013.0847>
- Mendonca, D., Beroggi, G. E. G., & Wallace, W. A. (2001). Decision support for improvisation during emergency response operations. *International Journal of Emergency Management*, 1(1), 30. <http://doi.org/10.1504/IJEM.2001.000507>
- Mendonca, D., & Wallace, W. (2004). Studying Organizationally-Situated Improvisation in Response to Extreme Events. *International Journal of Mass Emergencies and Disasters*, 22(2), 5–29.
- Mendonça, S., Cunha, M. P., Kaivo-oja, J., & Ruff, F. (2004). Wild cards, weak signals and organisational improvisation. *Futures*, 36(2), 201–218. [http://doi.org/10.1016/S0016-3287\(03\)00148-4](http://doi.org/10.1016/S0016-3287(03)00148-4)
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook*. SAGE Publications, Inc.
- Miner, A. S., Bassoff, P., & Moorman, C. (2001). Organizational Improvisation and Learning: A Field Study. *Administrative Science Quarterly*, 46(2), 304. <http://doi.org/10.2307/2667089>
- Mirvis, P. H. (1998). Variations on a Theme—Practice Improvisation. *Organization Science*, 9(5), 586–592. <http://doi.org/10.1287/orsc.9.5.586>
- Mitchell, G. E. (2013a). The Construct of Organizational Effectiveness. *Nonprofit and*

- Voluntary Sector Quarterly*, 42(2), 324–345.  
<http://doi.org/10.1177/0899764011434589>
- Mitchell, G. E. (2013b). The Construct of Organizational Effectiveness. *Nonprofit and Voluntary Sector Quarterly*, 42(2), 324–345.  
<http://doi.org/10.1177/0899764011434589>
- Moorman, C., & Miner, A. S. (1998a). Organizational Improvisation and Organizational Memory. *The Academy of Management Review*, 23(4), 698.  
<http://doi.org/10.2307/259058>
- Moorman, C., & Miner, A. S. (1998b). The Convergence of Planning and Execution: Improvisation in New Product Development. *Journal of Marketing*, 62(3), 1.  
<http://doi.org/10.2307/1251740>
- National Disaster Coordinating Council. (2009). *Final Report on Tropical Storm “ONDOY” {Ketsana} (Glide No. TC-2009-000205-PHL)*.
- Nonaka, I. (2006). Organizational Knowledge Creation Theory: Evolutionary Paths and Future Advances. *Organization Studies*, 27(8), 1179–1208.  
<http://doi.org/10.1177/0170840606066312>
- Nonaka, I., & von Krogh, G. (2009). Perspective—Tacit Knowledge and Knowledge Conversion: Controversy and Advancement in Organizational Knowledge Creation Theory. *Organization Science*, 20(3), 635–652.  
<http://doi.org/10.1287/orsc.1080.0412>
- Orlikowski, W. J. (1992). Improvising Organizational Transformation Over Time : A Situated Change Perspective. *Information Systems Research*, 7(1), 63–92.
- Pavlou, P. A., & El Sawy, O. A. (2010). The “Third Hand”: IT-Enabled Competitive Advantage in Turbulence Through Improvisational Capabilities. *Information Systems Research*, 21(3), 443–471. <http://doi.org/10.1287/isre.1100.0280>
- Pearson, L., & Pelling, M. (2015). The UN Sendai Framework for Disaster Risk Reduction 2015–2030: Negotiation Process and Prospects for Science and Practice. *Journal of Extreme Events*, 02(01), 1571001-1–12. <http://doi.org/10.1142/S2345737615710013>
- Pentland, Brian T.; Feldman, M. (2005). Organizational routines as a unit of analysis. *Industrial and Corporate Change*, 14(5), 793–815. <http://doi.org/10.1093/icc/dth070>
- Pentland, B. T. (1999). Building Process Theory with Narrative: From Description to Explanation. *Academy of Management Review*, 24(4), 711–724.  
<http://doi.org/10.5465/AMR.1999.2553249>
- Peplowski, K. (1998). The Process of Improvisation. *Organization Science*, 9(5), 560–561.  
<http://doi.org/10.1287/orsc.9.5.560>
- Perrow, C. (1961). The Analysis of Goals in Complex Organizations. *American Sociological Review*, 26(6), 854. <http://doi.org/10.2307/2090570>

- Perrow, C. (1999). *Normal Accidents: Living with High Risk Technologies (Updated)*. Princeton University Press.
- Pilbeam, C., Davidson, R., Doherty, N., & Denyer, D. (2016). What learning happens? Using audio diaries to capture learning in response to safety-related events within retail and logistics organizations. *Safety Science*, 81, 59–67.  
<http://doi.org/10.1016/j.ssci.2015.07.034>
- Plowman, D. A., Baker, L. T., Beck, T. E., Kulkarni, M., Solansky, S. T., & Travis, D. V. (2007). Radical change accidentally: The emergence and amplification of small change. *Academy of Management Journal*, 50(3), 515–543.  
<http://doi.org/10.5465/AMJ.2007.25525647>
- Quarantelli, E. L., & Dynes, R. R. (1977). *Different Types of Organizations in Disaster Responses and Their Operational Problems*.
- Rankin, A., Dahlbäck, N., & Lundberg, J. (2013). A case study of factor influencing role improvisation in crisis response teams. *Cognition, Technology and Work*, 15(1), 79–93. <http://doi.org/10.1007/s10111-011-0186-3>
- Rerup, C. (2001). “Houston, we Have a Problem”: Anticipation and Improvisation as Sources of Organizational Resilience. *Comportamento Organizacional E Gestao*, 7(1), 27–44.
- Roberts, K. H. (1990). Some Characteristics of One Type of High Reliability Organization. *Organization Science*, 1(2), 160–176. <http://doi.org/10.1287/orsc.1.2.160>
- Rodriquez, H., Quarantelli, E. L., & Dynes, R. R. (Eds.). (2007). *Handbook of Disaster Research*. New York: Springer Science+Business Media, LLC.
- Roux-Dufort, C. (2007). Is Crisis Management (Only) a Management of Exceptions? *Journal of Contingencies and Crisis Management*, 15(2), 105–114.  
<http://doi.org/10.1111/j.1468-5973.2007.00507.x>
- Roux-Dufort, C., & Vidaillet, B. (2003). The Difficulties of Improvising in a Crisis Situation. *International Studies of Management and Organization*, 33(1), 86–115.
- Stake, R. E. (1995). The art of case study research. *The Art of Case Study Research*.  
<http://doi.org/10.1108/eb024859>
- Thomas, G. (2011). A Typology for the Case Study in Social Science Following a Review of Definition, Discourse, and Structure. *Qualitative Inquiry*, 17(6), 511–521.  
<http://doi.org/10.1177/1077800411409884>
- Thompson, J. D., & McEwen, W. J. (1958a). Organizational Goals and Environment: Goal-Setting as an Interaction Process. *American Sociological Review*, 23(1), 23.  
<http://doi.org/10.2307/2088620>
- Thompson, J. D., & McEwen, W. J. (1958b). Organizational Goals and Environment: Goal-Setting as an Interaction Process. *American Sociological Review*, 23(1), 23.

<http://doi.org/10.2307/2088620>

- Tsoukas, H. (2005). *Complex Knowledge: Studies in Organizational Epistemology*. Oxford University Press. <http://doi.org/10.1108/00220410710759048>
- Tsoukas, H., & Chia, R. (2002). On Organizational Becoming: Rethinking Organizational Change. *Organization Science*, 13(5), 567–582.  
<http://doi.org/10.1287/orsc.13.5.567.7810>
- UNISDR. (2015). *Sendai Framework for Disaster Risk Reduction 2015-2030*. Geneva.
- Van de Ven, A. H. (2007). *Engaged Scholarship: A Guide for Organizational and Social Research*. Oxford: Oxford University Press.  
<http://doi.org/10.1017/CBO9781107415324.004>
- Van de Ven, A. H., & Poole, M. S. (2005). Alternative Approaches for Studying Organizational Change. *Organization Studies*, 26, 1377–1404.  
<http://doi.org/10.1177/0170840605056907>
- Van De Ven, A. H., & Poole, M. S. (1995). Explaining Development and Change in Organizations, 20(3), 510–540.
- Vendelø, M. T. (2009). Improvisation and Learning in Organizations — An Opportunity for Future Empirical Research. *Management Learning*, 40(4), 449–456.  
<http://doi.org/10.1177/1350507609339684>
- Vera, D., & Crossan, M. (2004). Theatrical Improvisation: Lessons for Organizations. *Organization Studies*, 25(5), 727–749. <http://doi.org/10.1177/0170840604042412>
- Vera, D., & Crossan, M. (2005). Improvisation and Innovative Performance in Teams. *Organization Science*, 16(3), 203–224. <http://doi.org/10.1287/orsc.1050.0126>
- Villar, E. B., & Miralles, F. (2014a). Beyond resources and dynamic capabilities during disaster response: Response organizations in turbulent and networked environment: The case of a disaster response organization's simulated response to chemical spill disaster. In *2014 International Conference on Humanoid, Nanotechnology, Information Technology, Communication and Control, Environment and Management, HNICEM 2014*. Puerto Princesa, Philippines.  
<http://doi.org/10.1109/HNICEM.2014.7016213>
- Villar, E. B., & Miralles, F. (2014b). Inter-Organizational Coordination during Disaster Response in Social Media Age. In *2nd Asian Conference on Information Systems for Crisis Response and Management, ISCRAM Asia*. Colombo, Sri Lanka.
- Villar, E. B., & Miralles, F. (2015). Exploring the Micro-foundations of Improvisations towards Strategic Performance in Turbulent Environments: A Case of a Disaster Response Organization. In *British Academy of Management* (pp. 1–21). Portsmouth.
- Villar, E. B., & Miralles, F. (2016). Organizations in Crisis Situations: Towards an Understanding of Capability Frameworks of Organizations in Turbulent and

- Networked Environments. In R. Ortt, C. Bucker, & S. Klein (Eds.), *Handbook on Networks in Innovation and Crisis management; Theory and Practice in a Dynamic and Disruptive Environment* (pp. 51–76). Muenster.
- Villar, E. B., & Miralles, F. (2017). Exploring the Externalization Process of Tacit to Explicit Knowledge in Disaster Environments. In *Poster session presented at the Organization Science Winter Conference 23*. Park City, USA.
- Villar, E. B., & Miralles, F. (2018). *Purpose-Driven Improvisation During Organizational Shocks: Case Narrative of Three Critical Organizations and Typhoon Haiyan*. Barcelona.
- Wachtendorf, T. (2004). *Improvising 9/11: Organizational Improvisation Following the World Trade Center Disaster*. University of Delaware.
- Webb, G. R., Beverly, M., Mcmichael, M., Noon, J., & Patterson, T. (1999). *Role Improvising Under Conditions of Uncertainty: a Classification of Types - Preliminary Paper #289*. Newark, Delaware.
- Webb, G. R., & Chevreau, F. R. (2006). Planning to improvise: the importance of creativity and flexibility in crisis response. *International Journal of Emergency Management*, 3(1), 66. <http://doi.org/10.1504/IJEM.2006.010282>
- Weber, C., Sailer, K., & Katzy, B. (2015). Real-time foresight — Preparedness for dynamic networks. *Technological Forecasting and Social Change*, 101, 299–313. <http://doi.org/10.1016/j.techfore.2015.05.016>
- Weber, K., & Glynn, M. A. (2006). Making Sense with Institutions: Context, Thought and Action in Karl Weick's Theory. *Organization Studies*, 27(11), 1639–1660. <http://doi.org/10.1177/0170840606068343>
- Weick, K. E. (1990). The Vulnerable System: An Analysis of the Tenerife Air Disaster. *Journal of Management*, 16(3), 571–593. <http://doi.org/10.1177/014920639001600304>
- Weick, K. E. (1993). The Collapse of Sensemaking in Organizations: The Mann Gulch Disaster. *Administrative Science Quarterly*, 38(4), 628. <http://doi.org/10.2307/2393339>
- Weick, K. E. (1998). Introductory Essay—Improvisation as a Mindset for Organizational Analysis. *Organization Science*, 9(5), 543–555. <http://doi.org/10.1287/orsc.9.5.543>
- Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (1999). Organizing for High Reliability: Processes of Collective Mindfulness. In R. I. Sutton & B. M. Staw (Eds.), *Research in Organizational Behavior* (Vol. 1, pp. 81–123). Stanford: Jai Press.
- Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005a). Organizing and the Process of Sensemaking. *Organization Science*, 16(4), 409–421. <http://doi.org/10.1287/orsc.1050.0133>



- Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005b). Organizing and the Process of Sensemaking. *Organization Science*, 16(4), 409–421.  
<http://doi.org/10.1287/orsc.1050.0133>
- Wolbers, J., & Boersma, K. (2013). The common operational picture as collective sensemaking. *Journal of Contingencies and Crisis Management*, 21(4), 186–199.  
<http://doi.org/10.1111/1468-5973.12027>
- Wolbers, J., Boersma, K., & Groenewegen, P. (2017). Introducing a Fragmentation Perspective on Coordination in Crisis Management. *Organization Studies*.  
<http://doi.org/10.1177/0170840617717095>
- Wolbers, J., Groenewegen, P., & Boersma, K. (2017). Managing the Coordination Paradox: Introducing a Fragmentation Perspective in Crisis Management. *Organization Studies, Online Fir*. <http://doi.org/10.1177/0170840617717095>
- Yazan, B. (2015). Three Approaches to Case Study Methods in Education: Yin, Merriam, and Stake. *The Qualitative Report*, 20(2), 134–152.
- Yin, R. K. (2009). *Case Study Research Design and Methods* (Fourth). United States of America: Sage Publications.
- Yuchtman, E., & Seashore, S. E. (1967). A System Resource Approach to Organizational Effectiveness. *American Sociological Review*, 32(6), 891.  
<http://doi.org/10.2307/2092843>
- Zheng, W., Yang, B., & McLean, G. N. (2010). Linking organizational culture, structure, strategy, and organizational effectiveness: Mediating role of knowledge management. *Journal of Business Research*, 63(7), 763–771.  
<http://doi.org/10.1016/j.jbusres.2009.06.005>

## APPENDIX A: BIOGRAPHY

Eula Bianca Villar (Bianca) is a PhD Candidate and an EU Marie Curie Fellow in the Group of Entrepreneurship, Innovation, and Technology Management (GREITM) at La Salle – Universitat Ramon Llull in Barcelona, Spain. She has a Master’s degree in International Studies (from the University of Vienna/Diplomatic Academy of Vienna, Austria), and she completed a Bachelor of Arts degree in International Studies, where she graduated with *Honorable Mention* (De La Salle University Manila, Philippines).

Her current research lies at the intersection of organization studies and disaster science, where she is primarily interested in exploring organizing processes in disaster environments. Beyond her PhD topic, she is deeply driven by the temporal aspect of managing crises and disasters, and the larger context in which the discourse is situated, i.e. resilience and sustainability. On that note, her research interest largely centers around the process by which sustainability and resilience are related, which include questions like: how do societies rebuild after a disaster, and how does increased exposure to disasters increase incentive to internalize sustainability initiatives?

Bianca’s methodological strength lies in inductive research using qualitative data collected from field work, in-depth interviews, participatory and non-participatory observation, and archive data. She is well-versed in case study analysis and process narratives.

As part of her teaching duties during her PhD candidacy, she taught Business Statistics and Methods of Decision-making to undergraduate students of business, and Innovation Management to masters students of management.

Before pursuing a research career in the academia, Bianca worked as a policy specialist at the Department of Trade and Industry in the Government of the Philippines, as an applied research analyst in the private sector, and as a lecturer in the College of Business in De La Salle University Manila, and School of Multidisciplinary Studies in De La Salle College of Saint Benilde in the Philippines. She is fluent in Filipino (her native tongue) and English, and is conversant in Spanish and German.

Her lifelong goal is to use her social science training to bring people and organizations to think deeply about complex social issues, and in turn form communities that are driven to preserve the environment, and to create safe, resilient spaces.

## APPENDIX B: ENDORSEMENT FORM

Barcelona, August 1<sup>st</sup>, 2015

### Endorsement of EU Research on Crisis Management by Eula Bianca Villar

Eula Bianca Villar is officially affiliated with the Department of Business and Technology of La Salle – Ramon Llull University in Barcelona, Spain as PhD Candidate and Researcher. She has been with our institution since September 2013 and has a contract with us to complete the research project on “An IT-Enabled and Networked Firm’s Perspective on Crisis Management” on July 2016. This research project is funded by the European Union through the 7<sup>th</sup> Framework Programme of the Marie Curie Action under the European Commission.

Specifically, her research seeks to contribute to the understanding of the coping strategies that critical organizations employ during disaster response in order to sustain organizational performance. She will draw upon the experience of critical organizations during Typhoon Haiyan, and draw up an analysis based on multiple cases. The data she will be collecting will be based on in-depth interviews with selected organizational representatives, as well as document analysis.

Note that her research is not intended to evaluate organizational performance, but rather to understand the practices employed by critical organizations in disaster environments. The output of her undertaking will be a research paper that documents the practices of organizations which other organizations can learn from, and where applicable, identifies specific areas that may be helpful for the organizations in their respective take on training and management.

Finally, Ms. Villar is bound by professional ethics advocated by our University as well as the European Union, and thus prioritizes care and protection of the organization and its members in her research. All data that will be gathered, unless otherwise permitted by the organization, will be anonymous. Moreover, the organization will be consulted regarding the information gathered by Ms. Villar during the different stages of the research writing and dissemination.

Our institution thus endorses the research work of Ms. Villar, including the related work necessary to carry out the gathering of data to accomplish her project.

Prof. Dr. Francesc Miralles  
Academic Dean  
La Salle – Ramon Llull University  
[fmiralles@salleurl.edu](mailto:fmiralles@salleurl.edu)

## APPENDIX C: INTERVIEW CONSENT FORM (COPY)

*“Understanding Disaster Critical Organizations: Improvisation and Organizational Goals”  
(working title) funded by the European Union through the EU Commission’s 7<sup>th</sup> People  
Framework/Marie Curie Fellowship*

I agree to participate in a research project conducted by Eula Bianca Villar, and supervised by Prof. Francesc Miralles from La Salle – Universitat Ramon Llull in Barcelona, Spain.

The purpose of this document is to specify the terms of my participation in the project through being interviewed.

1. I have been given sufficient information about this research project. The purpose of my participation as an interviewee in this project has been explained to me and is clear.
2. My participation as an interviewee in this project is voluntary. There is no explicit or implicit coercion whatsoever to participate.
3. Participation involves being interviewed by Eula Bianca Villar from La Salle – Universitat Ramon Llull. The interview will last approximately 60 minutes, and I consent being contacted again for follow up interview. I allow the researcher to take written notes during the interview. I also allow audio recording of the interview. It is clear to me that in case I do not want the interview to be taped, I am at any point of time fully entitled to withdraw from participation.
4. I have the right not to answer any of the questions. If I feel uncomfortable in any way during the interview session, I have the right to withdraw from the interview.
5. I have been given the explicit guarantees that, if I wish so, the researcher will not identify me by name or function in any reports using information obtained from this interview, and that my confidentiality as a participant in this study will remain secure.
6. I understand that the findings of the study may be used for publication in selected journals.
7. I have been given the guarantee that this research project complies with ethics espoused by the La Salle – Universitat Ramon Llull, and has been endorsed by the same university. For any question regarding the research project, the university may be contacted through Prof. Dr. Francesc Miralles ([fmiralles@salleurl.edu](mailto:fmiralles@salleurl.edu)).

8. I have read and understood the points and statements of this form. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.
9. I have been given a copy of this consent form co-signed by the interviewer.

<u>Researcher's Signature over Printed Name and Date:</u>	<u>Participant's Signature over Printed Name and Date:</u>
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For further information, please contact:

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## APPENDIX D: INTERVIEW GUIDE

### **Pre-Interview:**

1. Build rapport with the interviewees.
2. Ensure that they know the objective of the project, and their reason for participation.
3. Explain the consent form, and reiterate anonymity.
4. Record names and related demographic data (age, years of service with the company, years of being employed)

### **During interview:**

#### **1. *Before Yolanda***<sup>52</sup>

- a. What was it like before the typhoon? Where were you?
- b. What were your duties?
- c. What were your expectations?
- d. What were the main goals of the organization?

#### **2. *During Yolanda***

- a. Are your expectations of the typhoon vis-à-vis the actual impact of the typhoon the same or different?
- b. How are they the same or different?

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<sup>52</sup> For familiarity, use the local name of the Typhoon.

- c. If they are different, can you expound a little more on what makes it different?
- d. How did you feel? How did you react?
- e. Why did you react that way?
- f. How did the organization respond to your reaction?
- g. Did the goals of the organization remain the same or did they change?
  - i. Can you expound more on that?

### **3. *After Yolanda***

- a. What was the state of the organization after the typhoon?
- b. What was the state of your family and yourself after the typhoon?
- c. Did you manage to go to work?
- d. How did it end up? How did you get to that end-state? Can you explain the process to me?
- e. What are your learnings?
- f. Anything that you want to still add?

### **Post-Interview**

1. Thank the interviewees for their time.
2. Stay in contact with the interviewees – update them about the progress of your work, where possible.
3. If applicable, send post-interview emails or call them to clarify certain things in the interview.



## APPENDIX E: CODING PROCESS VETTING – SUMMARY OF FORMAL PRESENTATIONS TO SCIENTIFIC COMMUNITIES

<b>Date and Place</b>	<b>Scientific Community</b>	<b>Core Commenters</b>
19 February 2016 Manila, Philippines	Center for Business Research and Development (CBRD) – De La Salle University Manila  Event: CBRD Lectures	Dr. Raymund Habaradas (DLSU Manila) Dr. Ben Teehankee (DLSU Manila) Dr. Victoria Tibon (DLSU Manila)  DBA and PhD Students
23-24 May 2016 Hamburg, Germany	Group of Research on Organizations and the Environment (GRONEN)  Event: PhD Consortium	Dr. Tima Bansal (Ivey Business School – Western University) Dr. Frances Bowen (Queen Mary University of London)  PhD Students
15-17 June 2016 Trondheim, Norway	NITIM Graduate School  Event: NITIM Summer School	Dr. Xavier Vilasis (La Salle – Universitat Ramon Llull) Dr. Erich Heumueller (Universitaet der Bundeswehr Muenchen)  PhD Students
6 July 2016 Barcelona, Spain	GREITM La Salle – Univesitat Ramon Llull  Event: Doctoral Week	Dr. Xavier Vilasis (La Salle – Universitaet Ramon Llull) Dr. Paul Fox (La Salle – Univesitaet Ramon Llull) Dr. Chris Kenneth (La Salle – Universitat Ramon Llull)  PhD Students of GREITM
24 January 2017 Barcelona, Spain	GRETIM La Salle – Universitat Ramon Llull  Event: Yearly Assessment	Dr. Xavier Vilasis (La Salle – Universitaet Ramon Llull) Dr. Paul Fox (La Salle – Univesitaet Ramon Llull) Dr. Chris Kenneth (La Salle – Universitat Ramon Llull)
6-8 July 2017 Copenhagen, Denmark	European Group for Organizational Studies (EGOS)  Event: 33 <sup>rd</sup> EGOS Colloquium  ** Note: paper version of the monograph was presented as a conference paper, which included the coding process	Valuable comments also received from: Professor David Buchanan (Cranfield School of Management) Dr. Kees Boersma (VU University Amsterdam) Members of Subtheme: Resilient Organizing

Esta Tesis Doctoral ha sido defendida el día \_\_\_\_ d\_\_\_\_\_ de 201\_\_

En el Centro\_\_\_\_\_

de la Universidad Ramon Llull, ante el Tribunal formado por los Doctores y Doctoras  
abajo firmantes, habiendo obtenido la calificación:

Presidente/a

\_\_\_\_\_

Vocal

\_\_\_\_\_

Vocal \*

\_\_\_\_\_

Vocal \*

\_\_\_\_\_

Secretario/a

\_\_\_\_\_

Doctorando/a

\_\_\_\_\_

(\*): Sólo en el caso de tener un tribunal de 5 miembros